LG
Life's Good

OWNER'S MANUAL

LED LCD TV

Please read this manual carefully before operating your set and retain it for future reference.

LED LCD TV MODELS

22LQ630H
26LQ630H
32LQ630H

LCD TV MODELS

42CQ610H

P/NO : SAC34026011 (1205-REV01)

www.lg.com

WARNING / CAUTION

WARNING/CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING/CAUTION

TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

NOTE TO CABLE/TV INSTALLER

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

WARNING / CAUTION

To prevent fire or shock hazards, do not expose this product to rain or moisture.

FCC NOTICE

Class B digital device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

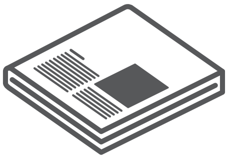
CAUTION

Do not attempt to modify this product in any way without written authorization from LG Electronics. Unauthorized modification could void the user’s authority to operate this product

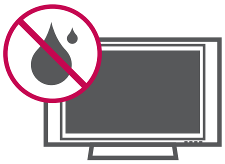
SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

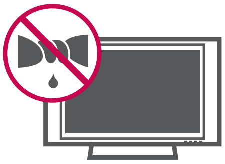
Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.



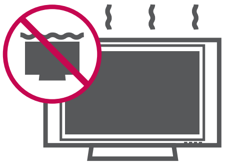
1. Do not use this apparatus near water.



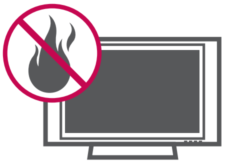
2. Clean only with a dry cloth.



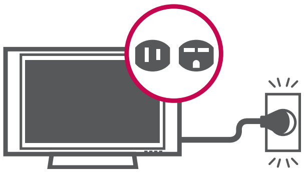
3. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.



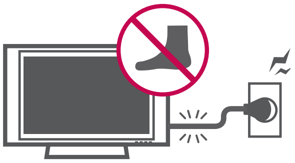
4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers)that produce heat.



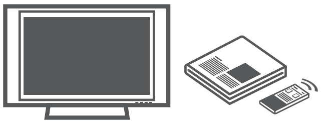
5. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong, The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



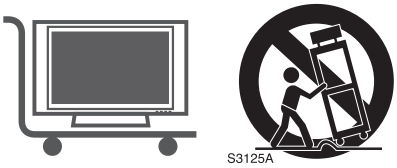
6. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.



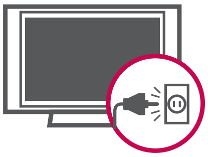
7. Only use attachments/accessories specified by the manufacturer.



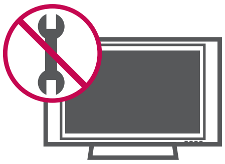
8. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



9. Unplug this apparatus during lighting storms or when unused for long periods of time.



10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



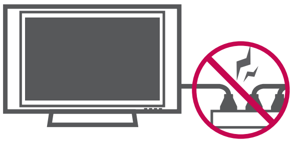
11 Never touch this apparatus or antenna during a thunder or lighting storm.

12 When mounting a TV on the wall, make sure not to install the TV by the hanging power and signal cables on the back of the TV.

13 Do not allow an impact shock or any objects to fall into the product, and do not drop onto the screen.

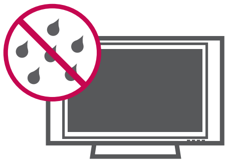
14 Keep the packing anti-moisture material or vinyl packing out of the reach of children. Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.

15 CAUTION concerning the Power Cord :
It is recommend that appliances be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.
Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock.
Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.
Do not move the TV with the power cord plugged in. Do not use a damaged or loose power cord. Be sure do grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.

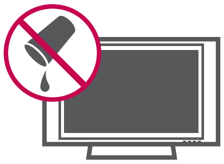


16 Do not stick metal objects or any other conductive material into the power cord. Do not touch the end of the power cord while it is plugged in.

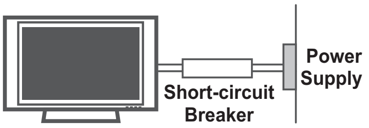
17 WARNING - To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the TV with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the TV to direct air conditioning.



18 Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).



19 **GROUNDING**
(Except for devices which are not grounded.)
Ensure that you connect the earth ground wire to prevent possible electric shock. (i.e. a TV with a three-prong grounded AC plug must be connected to a three-prong grouned AC outlet) If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.
Do not try to ground the unit by connecting it to telephone wires, lightening rods, or gas pipes.



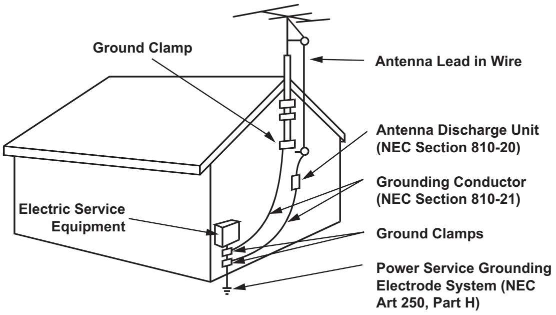
20 **DISCONNECTING DEVICE FROM MAINS**
Mains plug is the disconnecting device.
The plug must remain readily operable.

21 As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.
Do not attempt to modify this product in any way without written authorization from LG Electronics. Unauthorized modification could void the user's authority to operate this product.

22 **ANTENNAS**
Outdoor antenna grounding
If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits as death or serious injury can occur.
Be sure the antenna system is grounded so as

to provide some protection against voltage surges and built-up static charges.
Section 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

Antenna grounding according to the National Electrical Code, ANSI/NFPA 70


Ground Clamp
Antenna Lead in Wire
Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductor (NEC Section 810-21)
Electric Service Equipment
Ground Clamps
Power Service Grounding Electrode System (NEC Art 250, Part H)

NEC: National Electrical Code

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23 **Cleaning**

When cleaning, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the TV as electric shock may occur. Do not clean with chemicals such as alcohol, thinners or benzene.

24 **Moving**

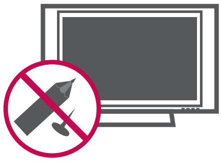
Make sure the product is turned off, unplugged and all cables have been removed. It may take 2 or more people to carry larger TVs. Do not press against or put stress on the front panel of the TV.

25 **Ventilation**

Install your TV where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g.) plastic while plugged in. Do not install in excessively dusty places.

26 If you smell smoke or other odors coming from the TV, unplug the power cord contact and authorized service center.

27 Do not press strongly upon the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it.



28 Keep the product away from direct sunlight.

29 **Dot Defect**

The Plasma or LCD panel is a high technology product with resolution of two million to six million pixels. In a very few cases, you could see fine dots on the screen while you're viewing the TV. Those dots are deactivated pixels and do not affect the performance and reliability of the TV.

30 **Generated Sound**

"Cracking" noise: A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required.
Electrical circuit humming/panel buzzing: A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending on the product.
This generated sound does not affect the performance and reliability of the product.

31 Take care not to touch the ventilation openings. When watching the TV for a long period, the ventilation openings may become hot.

32 If the TV feels cold to the touch, there may be a small "flicker" when it is turned on. This is normal, there is nothing wrong with TV.
Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the monitor's performance.
Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.

ON DISPOSAL

(Only Hg lamp used LCD TV)

The fluorescent lamp used in this product contains a small amount of mercury. Do not dispose of this product with general household waste. Disposal of this product must be carried out in accordance to the regulations of your local authority.

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FEATURES OF THIS TV

HDMI™, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LCC.

View videos and photos and listen to music on your TV through USB 2.0 ('videos' dependent on model).

Manufactured under license from Dolby Laboratories. "Dolby "and the double-D symbol are trademarks of Dolby Laboratories.

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

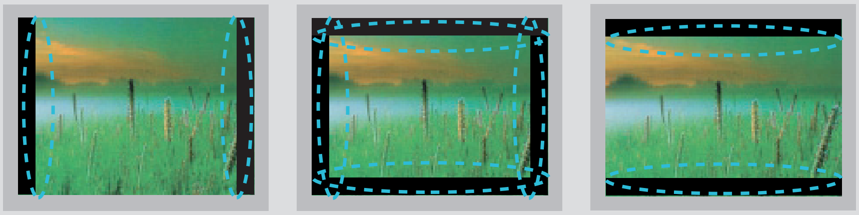
"DivX Certified® to play DivX® video up to HD 1080p, including premium content."

"DivX®, DivX Certified® and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license."

"Covered by one or more of the following U.S. patents:
7,295,673; 7,460,668; 7,515,710; 7,519,274"

IMPORTANT INFORMATION TO PREVENT "IMAGE BURN / BURN-IN" ON YOUR TV SCREEN

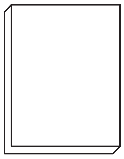
- When a fixed image (e.g. logos, screen menus, video game, and computer display) is displayed on the TV for an extended period, it can become permanently imprinted on the screen. This phenomenon is known as "image burn" or "burn-in." Image burn is not covered under the manufacturer's warranty.
- In order to prevent image burn, avoid displaying a fixed image on your TV screen for a prolonged period (2 or more hours for LCD, 1 or more hours for Plasma).
- Image burn can also occur on the letterboxed areas of your TV if you use the 4:3 aspect ratio setting for an extended period.



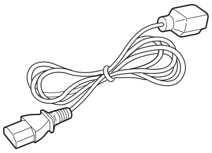
PREPARATION

ACCESSORIES

Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the TV.
The accessories included may differ from the images below.

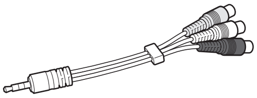


Quick Reference Guide



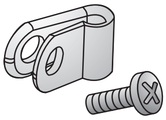
Power Cord

(For 22/26/32LQ630H)



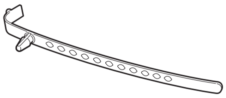
A/V adapter cable

(For 26LQ630H/42CQ610H)



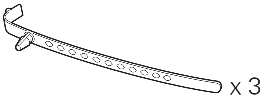
Protective bracket and
screw for power cord

(For 22/26LQ630H)



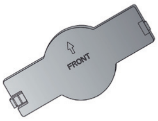
Cable holder
(See p.15)

(For 32LQ630H)



Cable holder
(See p.15)

(For 42CQ610H)



Protection cover
(See p.9)

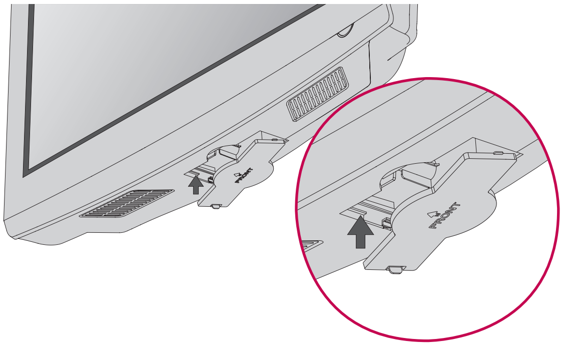
PROTECTION COVER

Image shown may differ from your TV.

42CQ610H

Install the included **PROTECTION COVER** over the hole for the stand.

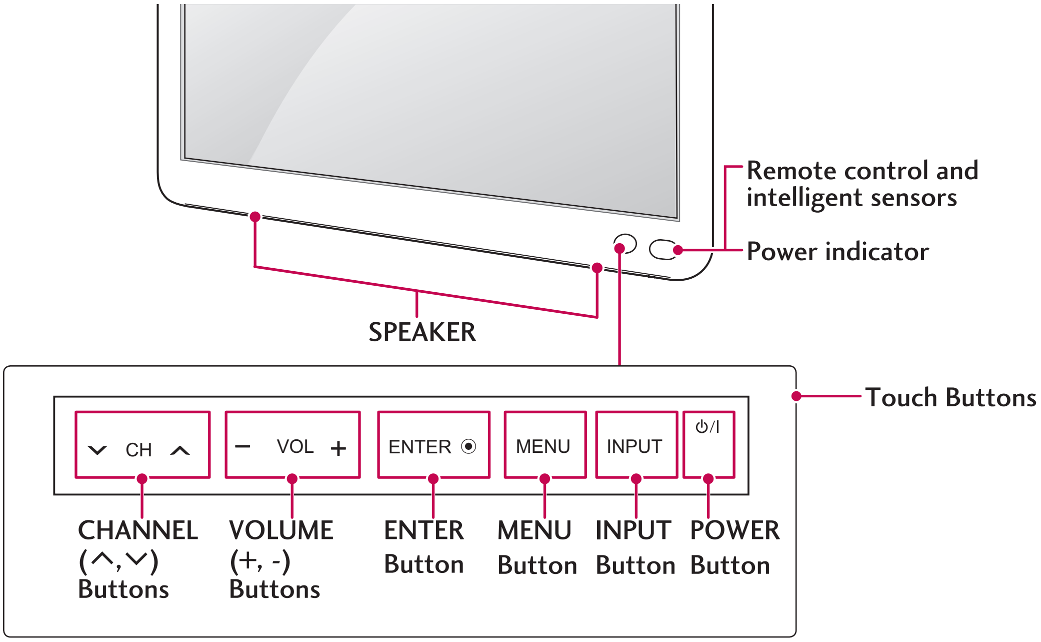
Press the **Protection cover** into the TV until you hear it click.



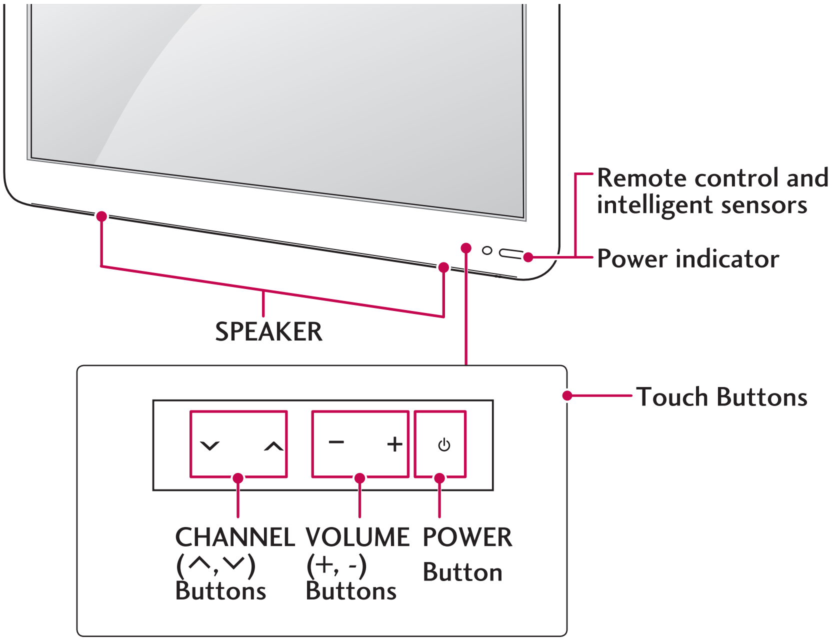
FRONT PANEL INFORMATION

- Image shown may differ from your TV.
- **NOTE**: If your TV has a protection tape attached, remove the tape. And then wipe the TV with a cloth (If a polishing cloth is included with your TV, use it).

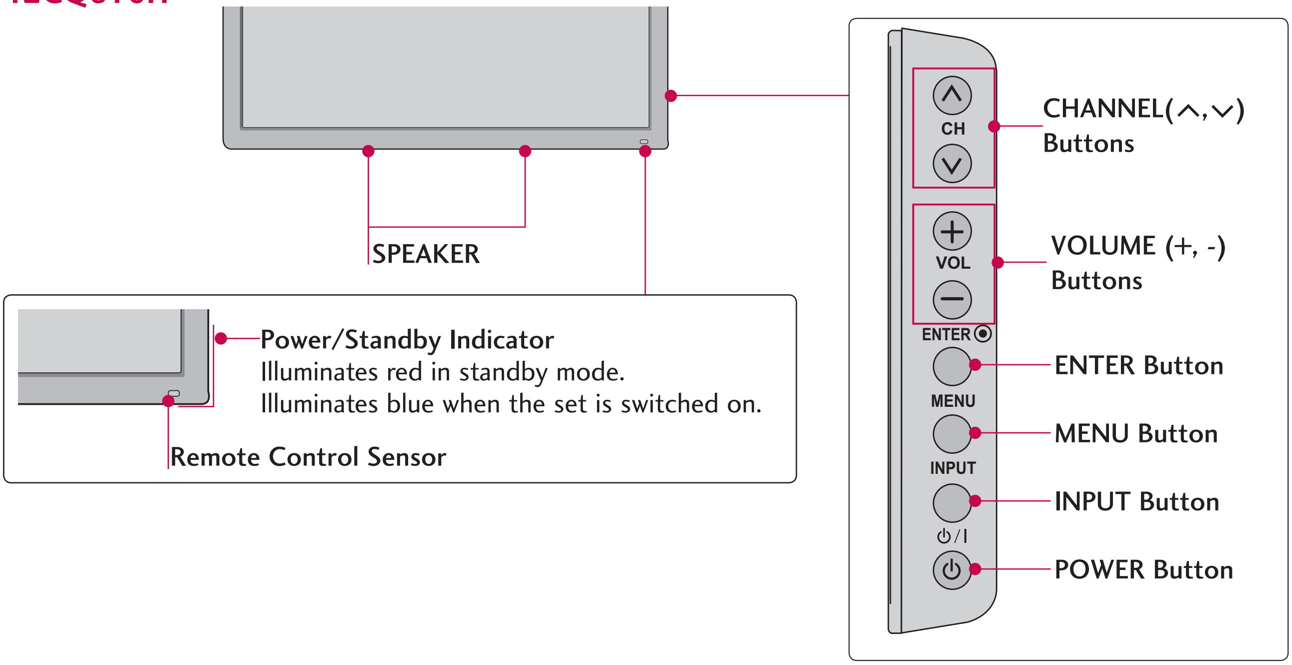
22LQ630H


Remote control and intelligent sensors
Power indicator
SPEAKER
Touch Buttons
CH
VOL
ENTER
MENU
INPUT
⏻/I
CHANNEL (⌃,⌄) Buttons
VOLUME (+, -) Buttons
ENTER Button
MENU Button
INPUT Button
POWER Button

26/32LQ630H


Remote control and intelligent sensors
Power indicator
SPEAKER
Touch Buttons
CHANNEL (⌃,⌄) Buttons
VOLUME (+, -) Buttons
POWER Button

42CQ610H


SPEAKER
Power/Standby Indicator
Illuminates red in standby mode.
Illuminates blue when the set is switched on.
Remote Control Sensor
CH
VOL
ENTER
MENU
INPUT
⏻/I
CHANNEL(∧,∨) Buttons
VOLUME (+, -) Buttons
ENTER Button
MENU Button
INPUT Button
POWER Button

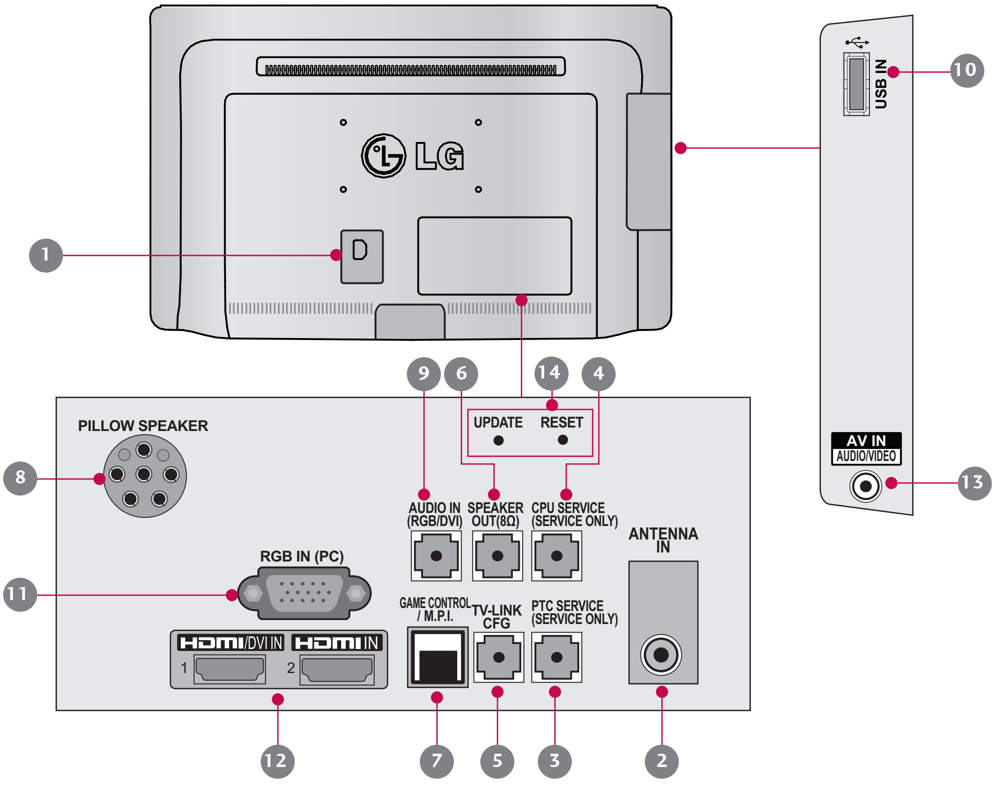
NOTE

▶ If Installer menu item 027(HOSPITAL MODE) is set value 254(Default), standby indicator does not illuminate.

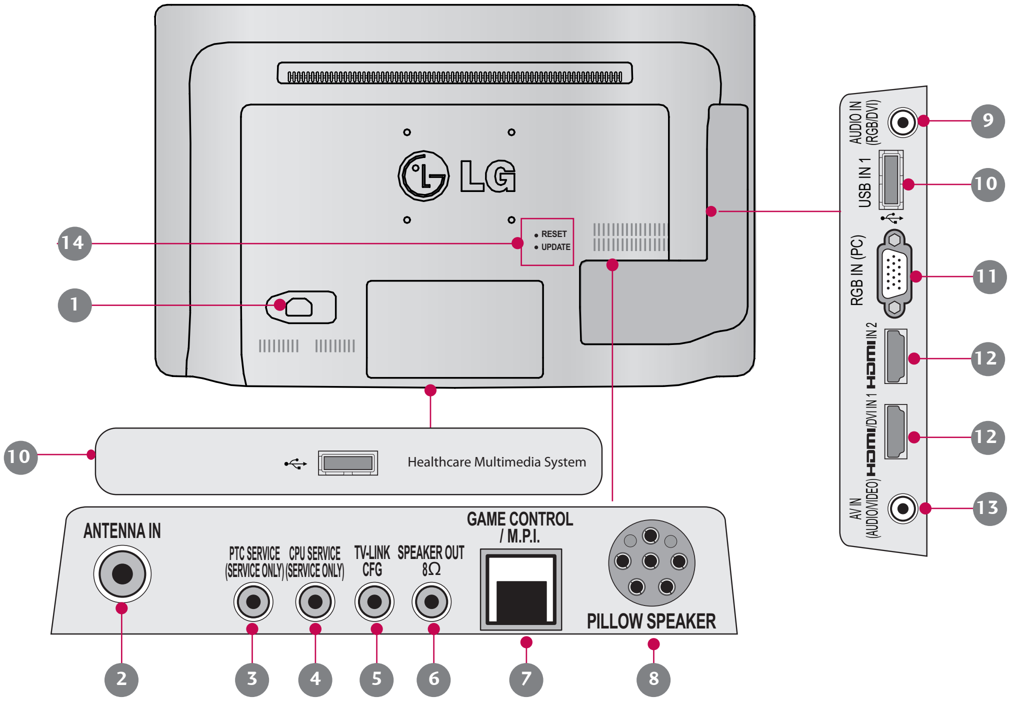
BACK PANEL INFORMATION

■ Image shown may differ from your TV.

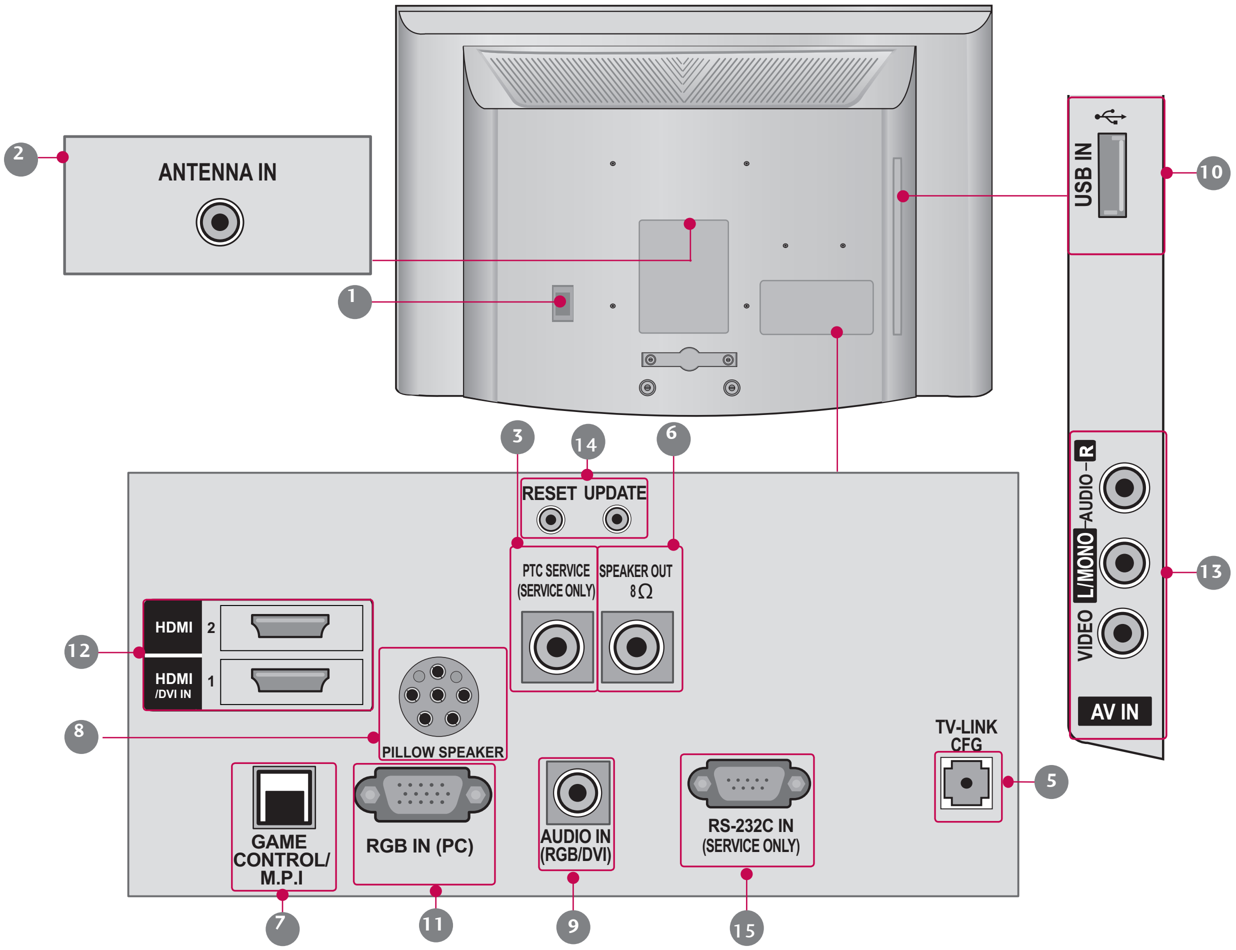
22LQ630H


LG
D
USB IN
AV IN
AUDIO/VIDEO
PILLOW SPEAKER
UPDATE
RESET
AUDIO IN (RGB/DVI)
SPEAKER OUT(8Ω)
CPU SERVICE (SERVICE ONLY)
ANTENNA IN
RGB IN (PC)
GAME CONTROL / M.P.I.
TV-LINK CFG
PTC SERVICE (SERVICE ONLY)
HDMI/DVI IN 1
HDMI IN 2
1
2
3
4
5
6
7
8
9
10
11
12
13
14

26/32LQ630H


LG
RESET
UPDATE
Healthcare Multimedia System
ANTENNA IN
PTC SERVICE (SERVICE ONLY)
CPU SERVICE (SERVICE ONLY)
TV-LINK CFG
SPEAKER OUT 8Ω
GAME CONTROL / M.P.I.
PILLOW SPEAKER
AUDIO IN (RGB/DVI)
USB IN 1
RGB IN (PC)
HDMI IN 2
HDMI/DVI IN 1
AV IN (AUDIO/VIDEO)
1
2
3
4
5
6
7
8
9
10
11
12
13
14

42CQ610H


2
ANTENNA IN
1
USB IN
10
3
14
6
RESET
UPDATE
PTC SERVICE
(SERVICE ONLY)
SPEAKER OUT
8Ω
12
HDMI
2
HDMI
/DVI IN
1
8
PILLOW SPEAKER
VIDEO
L/MONO
AUDIO
R
13
AV IN
TV-LINK
CFG
5
GAME
CONTROL/
M.P.I
RGB IN (PC)
AUDIO IN
(RGB/DVI)
RS-232C IN
(SERVICE ONLY)
7
11
9
15

① **Power Cord Socket**

For operation with AC power.

Caution: Never attempt to operate the TV on DC power.

② **ANTENNA IN**

Connect over-the air signals to this jack.

③ **PTC SERVICE (SERVICE ONLY)**

Used for PTC software updates.

④ **CPU SERVICE (SERVICE ONLY)**

Used for CPU software updates.

⑤ **TV - LINK CFG**

Computer input for programming Free To Guest services.

⑥ **SPEAKER OUT (8Ω)**

For use with external speakers.

⑦ **GAME CONTROL**

Input port for third party game Controllers.

M. P. I.

Allows VOD/PPV devices or set-top boxes to control the TV.

⑧ **PILLOW SPEAKER**

Used to connect to pillow speaker.

⑨ **AUDIO IN (RGB/DVI)**

1/8” headphone jack for analog PC audio input.

⑩ **USB IN**

Used for viewing multimedia files.

⑪ **RGB IN (PC)**

Analog PC Connection. Uses a D-sub 15-pin cable (VGA cable).

⑫ **HDMI/DVI IN**

Digital Connection.

Supports HD video and Digital audio.

Accepts DVI video using an adapter or HDMI to DVI cable (not included).

⑬ **AV (Audio/Video) IN**

Analog composite connection. Supports standard definition video only (480i).

Used for PC/DTV audio input jack

⑭ **UPDATE**

Software downloads and debug mode enable/ disable.

RESET

Hardware reset to PTC microcontroller.

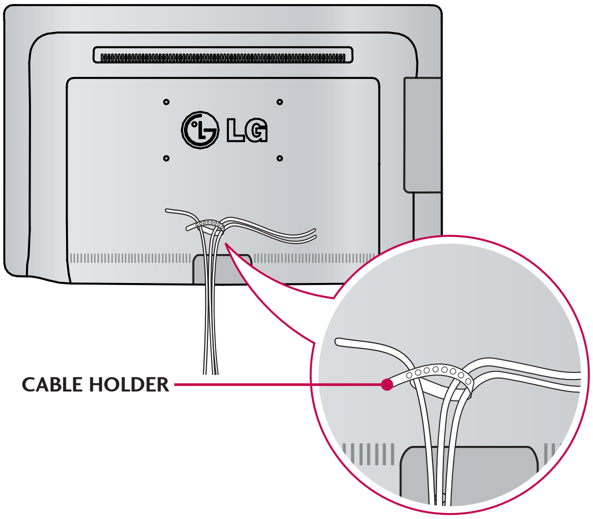
⑮ **RS-232C IN (SERVICE ONLY)**

Used for software updates.

CABLE MANAGEMENT

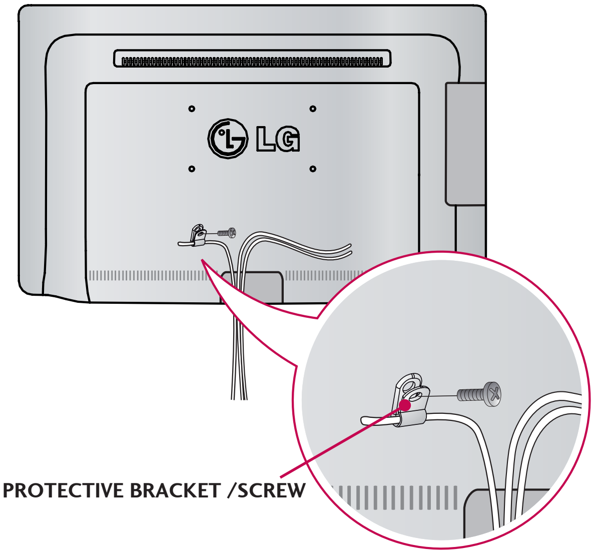
22/32LQ630H

1 Gather and bind the cables with the **CABLE HOLDER(S)** on the TV back cover.

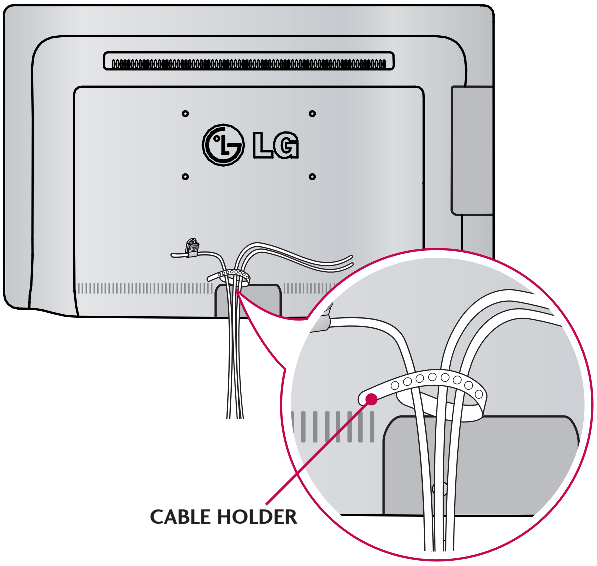

CABLE HOLDER

26LQ630H

1 Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.
To help prevent the power cable from being removed by accident, secure the power cable with the included **PROTECTIVE BRACKET / SCREW.**

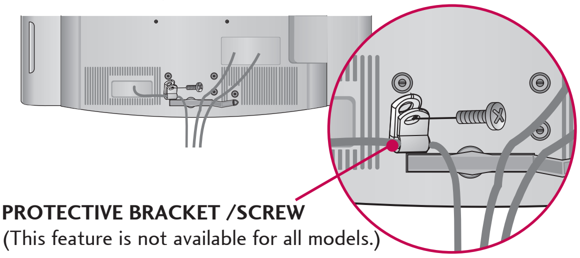

PROTECTIVE BRACKET /SCREW

2 Gether and bind the cables with the **CABLE HOLDER** on the TV back cover.

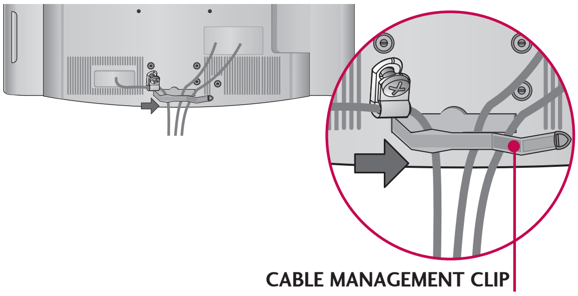

CABLE HOLDER

42CQ610H

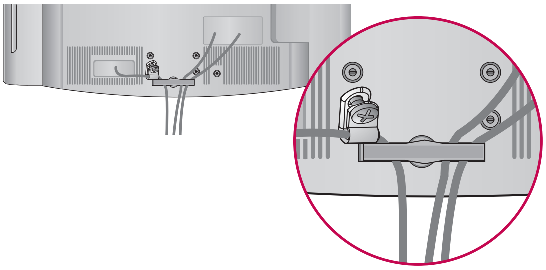
1. Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.
Secure the power cable with the **PROTECTIVE BRACKET/SCREW** as shown**.**
It will help prevent the power cable from being removed by accident.


PROTECTIVE BRACKET /SCREW
(This feature is not available for all models.)

2. Install the **CABLE MANAGEMENT CLIP** as shown.


CABLE MANAGEMENT CLIP

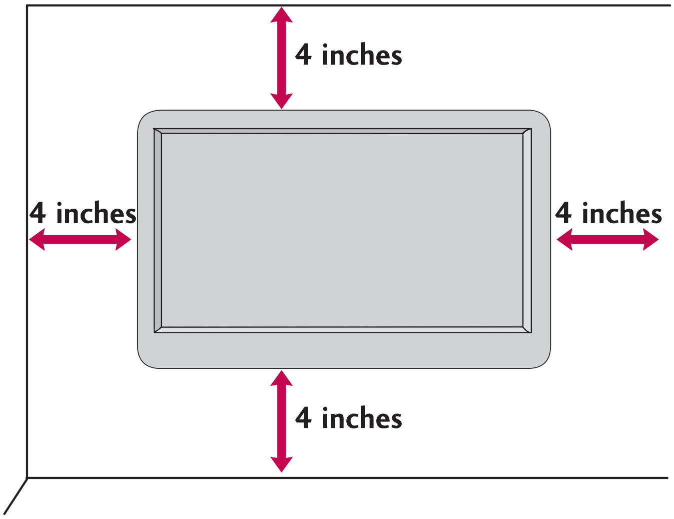
3. Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.

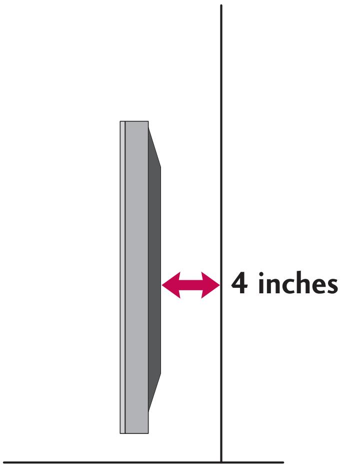


WALL MOUNT INSTALLATION

- Image shown may differ from your TV.

For proper ventilation, allow a clearance of 4 inches on all four sides.





⚠ CAUTION

- ▶ Ensure adequate ventilation by following the clearance recommendations.
- ▶ Do not mount near or above any type of heat source.
- ▶ Do not put this product next to the patient's bed where it can be reached by the patient.
- ▶ Install product in such a way that patients will not be able to touch this product
- ▶ This product should only be mounted on a wall.

KENSINGTON SECURITY SYSTEM

- This feature is not available for all models.

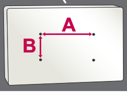
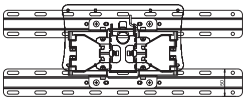
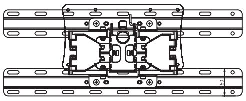
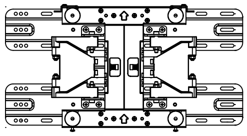
- The TV is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
- For the detailed installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.
  For further information, contact **http://www.kensington.com**, the internet homepage of the Kensington company. Kensington sells security systems for expensive electronic equipment such as notebook PCs and LCD projectors.

NOTE

- ▶ The Kensington Security System is an optional accessory.

VESA WALL MOUNTING

Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest installer.
If installed on a ceiling or slanted wall, it may fall and result in severe personal injury.
We recommend that you use an LG brand wall mount when mounting the TV to a wall.
LG recommends that wall mounting be performed by a qualified professional installer.

Model	VESA (A ∗ B) 	Standard Screw	Quantity	Wall Mounting Bracket (sold separately)
22LQ630H 26LQ630H	100 * 100	M4	4	 LSW100B(G)
32LQ630H	200 ∗ 100	M4	4	 LSW100B(G)
42CQ610H	200 ∗ 200	M6	4	 LSW200BX(G), LSW220BX(G)

NOTE

- Screw length needed depends on the wall mount used. For further information, refer to the instructions included with the mount.
- Standard dimensions for wall mount kits are shown in the table.
- When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws longer then the standard dimension, as they may cause damage to the inside of the TV.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on their specifications.
- Do not use screws that do not comply with the VESA standard screw specifications.
  Do not use fasten the screws too strongly, this may damage the TV or cause the TV to a fall, leading to personal injury. LG is not liable for these kinds of accidents.
- LG is not liable for TV damage or personal injury when a non-VESA or non specified wall mount is used or the consumer fails to follow the TV installation instructions.

CAUTION

- Do not install your wall mount kit while your TV is turned on. It may result in personal injury due to electric shock.

WARNING

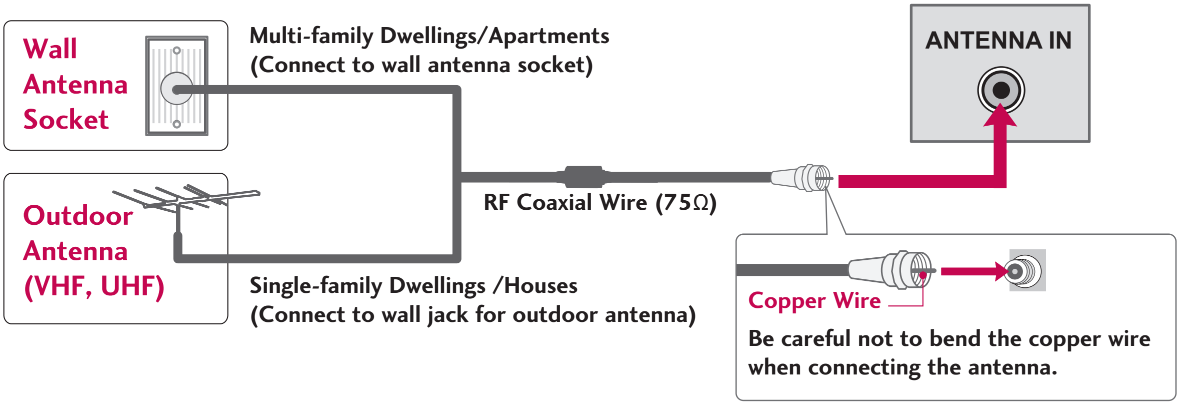
- To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.

- To prevent damage, do not connect to the power outlet until all connections are made between the devices.

ANTENNA OR CABLE CONNECTION

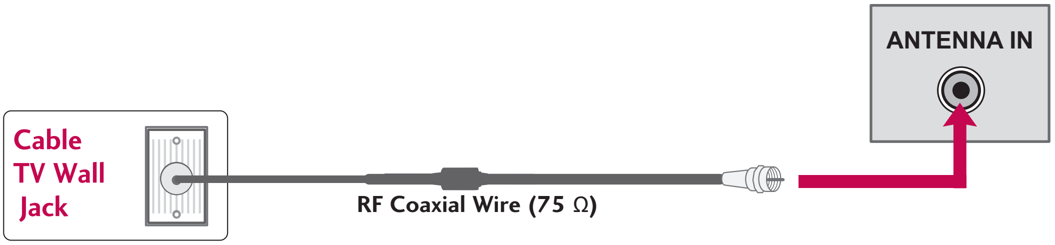
1. Antenna (Analog or Digital)

Wall Antenna Socket or Outdoor Antenna without a Cable Box Connection.
For optimum picture quality, adjust the direction if needed.


Wall Antenna Socket
Multi-family Dwellings/Apartments
(Connect to wall antenna socket)
ANTENNA IN
Outdoor Antenna (VHF, UHF)
RF Coaxial Wire (75Ω)
Single-family Dwellings /Houses
(Connect to wall jack for outdoor antenna)
Copper Wire

Be careful not to bend the copper wire when connecting the antenna.

2. Cable


ANTENNA IN
Cable TV Wall Jack
RF Coaxial Wire (75 Ω)

- To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.
- If the antenna needs to be split for two TV’s, install a 2-Way Signal Splitter.
- If the antenna is not installed properly, contact your dealer for assistance.

EXTERNAL EQUIPMENT SETUP

- To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.
- This part of EXTERNAL EQUIPMENT SETUP mainly uses the picture for 22LQ630H model.

HD RECEIVER SETUP

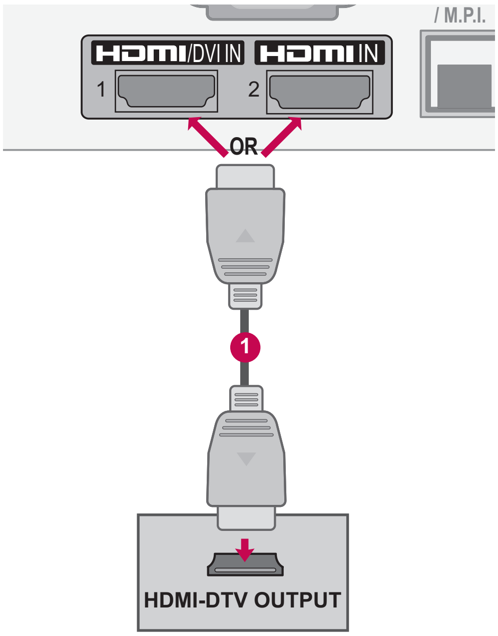
This TV can receive Digital Over-the-air or Digital Cable signals without an external digital set-top box. However, if you do receive digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.

HDMI Connection

1. How to connect

① Connect the digital set-top box to **HDMI/DVI IN 1** jack on the TV.

② No separate audio connection is necessary. HDMI supports both audio and video.



2. How to use

- Turn on the digital set-top box.
  (Refer to the owner's manual for the digital set-top box.)
- Select **HDMI 1** or **HDMI 2** input source with using the **INPUT** button on the remote control.

HDMI-DTV

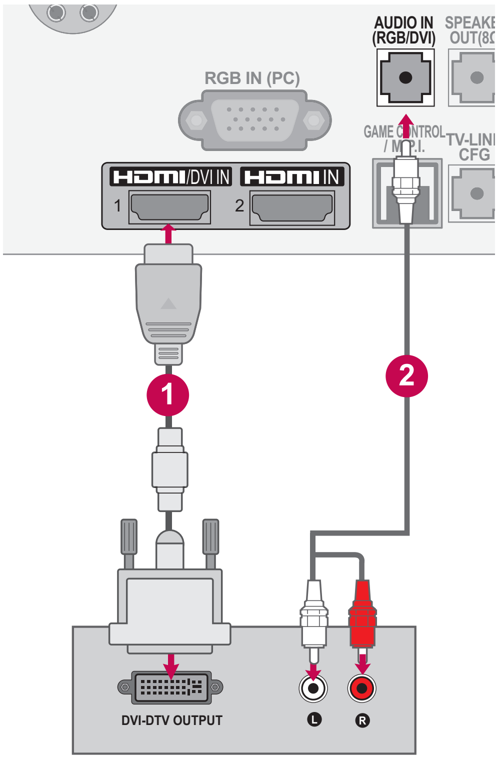
Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x480p	31.47	59.94
	31.47	60.00
1280x720p	44.96	59.94
	45.00	60.00
1920x1080i	33.72	59.94
	33.75	60.00
1920x1080p	67.50	60.00
	67.432	59.939
	27.00	24.00
	26.97	23.976
	33.75	30.00
	33.71	29.97

DVI to HDMI Connection

1. How to connect

① Connect the DVI output of the digital set-top box to the **HDMI/DVI IN 1** jack on the TV.

② Connect the audio output of the digital set-top box to the **AUDIO IN(RGB/DVI)** or **AV IN AUDIO** jack on the TV.


AUDIO IN (RGB/DVI)
SPEAKE OUT(8
RGB IN (PC)
GAME CONTROL / M.P.I.
TV-LIN CFG
HDMI/DVI IN
HDMI IN
1
2
1
2
DVI-DTV OUTPUT
L
R

2. How to use

- Turn on the digital set-top box.

  (Refer to the owner's manual for the digital set-top box.)
- Select the **HDMI 1** input source on the TV using the **INPUT** button on the remote control.

NOTE

▶ A DVI to HDMI cable or adapter is required for this connection. DVI doesn't support audio, so a separate audio connection is necessary.

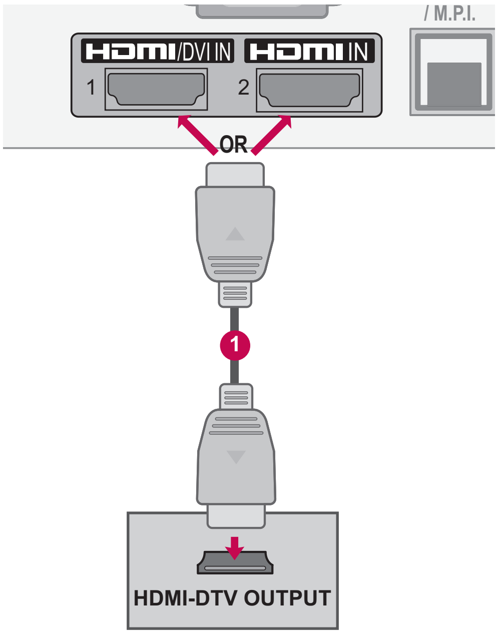
DVD SETUP

HDMI Connection

1. How to connect

① Connect the HDMI output of the DVD to the **HDMI/DVI IN 1** jack on the TV.

② No separate audio connection is necessary. HDMI supports both audio and video.



2. How to use

- Select the **HDMI 1** or **HDMI 2** input source on the TV using the **INPUT** button on the remote control.
- Refer to the DVD player's manual for operating instructions.

VCR SETUP

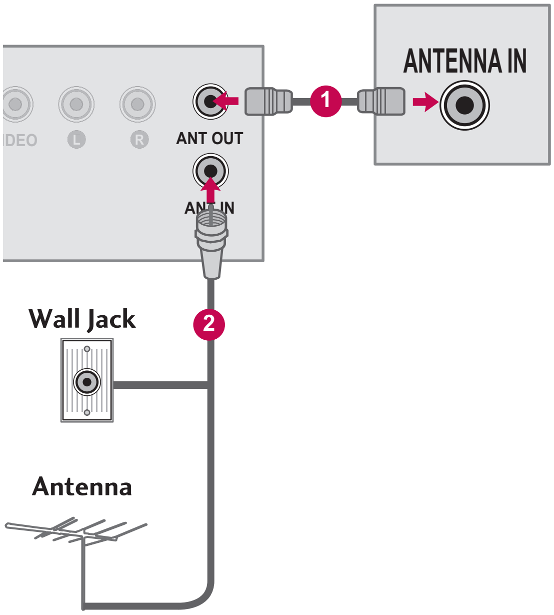
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen. This phenomenon is common to all TVs and is not covered by warranty.

Antenna Connection

1. How to connect

① Connect the RF antenna out socket of the VCR to the **ANTENNA IN** socket on the TV.

② Connect the antenna cable to the RF antenna in socket of the VCR.



2. How to use

- Set VCR output switch to 3 or 4 and then tune TV to the same channel number.
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)

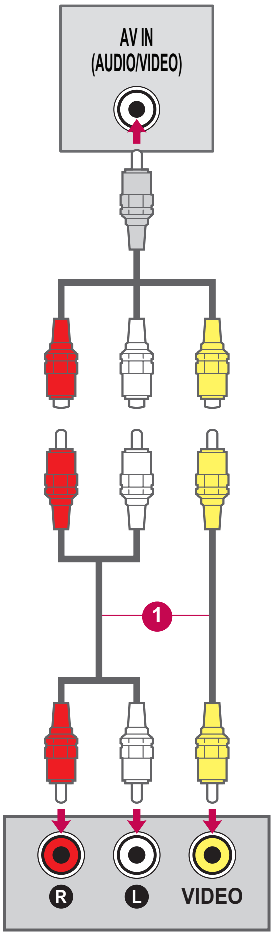
Composite (RCA) Connection

1. How to connect

① Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

2. How to use

- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the **AV** input source on the TV using the **INPUT** button on the remote control.



NOTE

▶ If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L(MONO)** jack of the TV.

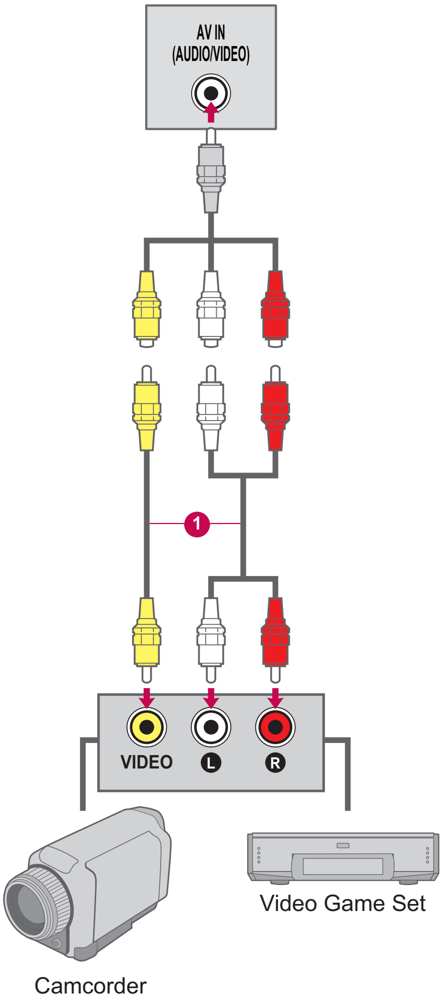
OTHER A/V SOURCE SETUP

1. How to connect

① Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

2. How to use

- Select the **AV** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN** input, select the **AV** input source on the TV.
- Operate the corresponding external equipment.


AV IN
(AUDIO/VIDEO)
1
VIDEO
L
R
Camcorder
Video Game Set

PILLOW SPEAKER SETUP

- Connect a pillow speaker to the LCD TV/Monitor.

How to connect

Connect the pillow speaker (see example at right) to the PILLOW SPEAKER interface on the rear jack panel of the TV.

Use a pillow speaker that is a UL recognized pendant control bearing the warning:
**"Risk of fire if used in oxygen enriched atmosphere.
Keep pendant control away from oxygen equipment."**

Controlling the TV with Serial Data

These TV models are capable of being controlled by a single-wire, serial data signal. This is an LG patented technology and is being implemented by certain brands of "smart" pillow speakers.

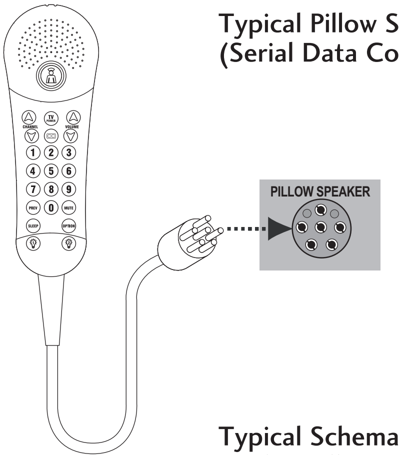
Pillow Speaker Interface

This connector provides an interface for patient-pendant remote control or entertainment audio and nurse call systems. All lines are isolated from the AC power line. (Optoisolators isolate the control lines, and a transformer isolates the audio.) Earth ground is provided on pin 4 (Common) in the default configuration (e.g., for Zenith/Philips pillow speakers). For negative voltage configuration (e.g., for RCA pillow speakers), +5 volts is provided on pin 4 (Common), with pin 3 (Channel Up/Data In) referenced to ground.

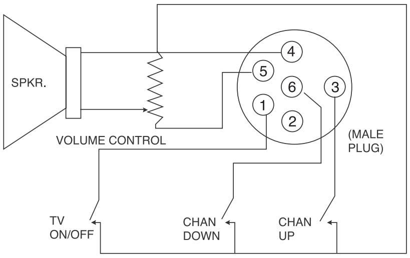
The following table describes the pillow speaker interface pinout (see also diagram at right).

Pin No.	Description
1	Analog external control for TV ON/OFF.
2	No connection
3	Analog external control for Channel Up or Serial Data in.
4	Common connection for control, data, and audio output.
5	Isolated Audio Output. Nominal 14 ohm source impedance with short circuit protection. Intended for a pillow speaker with a lowimpedance, pad-type volume control.
6	Analog external control for Channel Down.

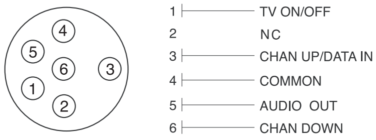
Typical Pillow Speaker (Serial Data Control)



Typical Schematic for Analog Pillow Speaker



Pillow Speaker Interface Pinout



Controlling the TV with Mechanical Switches

A typical analog pillow speaker with mechanical switches will momentarily connect pin 1, 3, or 6 to pin 4 (Common) to control Power ON/OFF, Channel Up, or Channel Down (see schematic above). These pins are at +13 volts DC (when measured from pin 4) with the switches open. Typical current draw is 8 mA when a switch is closed. (This operation is identical to previous models using the 5-wire interface, except that only +7 volts DC was supplied and current draw was only 2.5 mA.)

PC SETUP

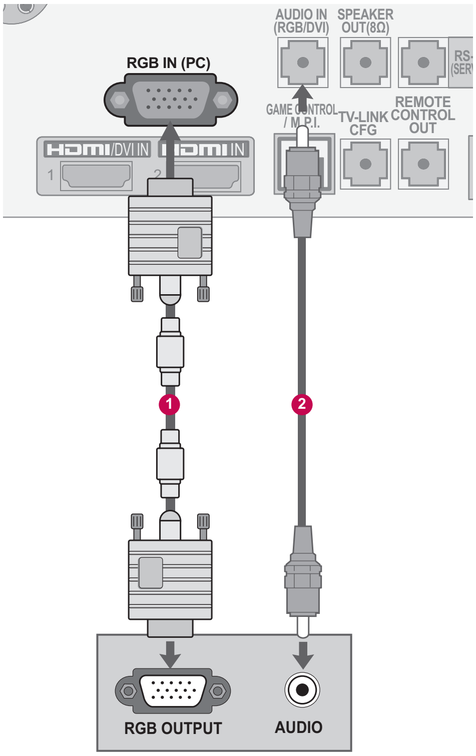
This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

VGA (D-Sub 15-pin) Connection

1. How to connect

① Connect the VGA output of the PC to the **RGB IN (PC)** jack on the TV.

② Connect the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.



2. How to use

- Turn on the PC and the TV.
- Select the **RGB-PC** input source on the TV using the **INPUT** button on the remote control.

Supported Display Specifications (RGB-PC, HDMI-PC)

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.776	59.87
1360x768	47.712	60.015

! NOTE

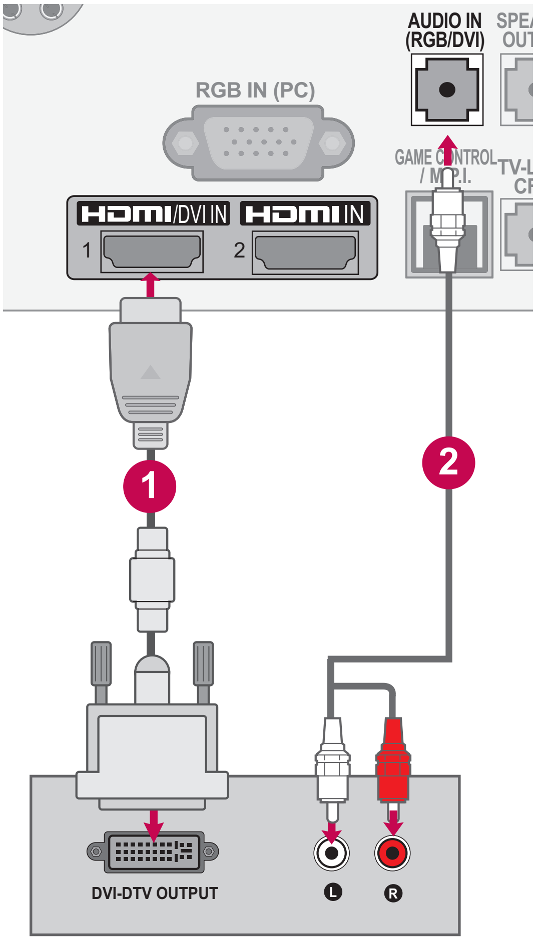
- ▶ To get the the best picture quality, adjust the PC graphics card to **1360x768**.
- ▶ Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
- ▶ In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- ▶ Avoid keeping a fixed image on the screen for a long period of time. The fixed image could become permanently imprinted on the screen.
- ▶ The synchronization input form for Horizontal and Vertical frequencies is separate.
- ▶ Depending on the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.

DVI to HDMI Connection

1. How to connect

① Connect the DVI output of the PC to the **HDMI/DVI IN 1** jack on the TV.

② Connect the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.


AUDIO IN (RGB/DVI)
RGB IN (PC)
GAME CONTROL / M.P.I.
HDMI/DVI IN
1
HDMI IN
2
1
2
DVI-DTV OUTPUT
L
R

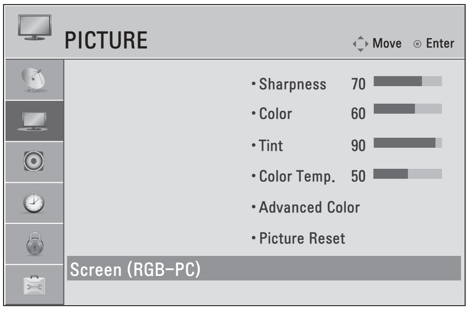
2. How to use

- Turn on the PC and the TV.
- Select the **HDMI 1** input source on the TV using the **INPUT** button on the remote control.

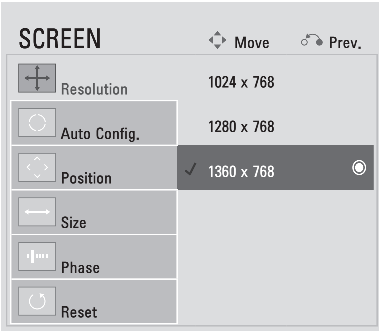
Screen Setup for PC mode

Selecting Resolution

You can choose the resolution in RGB-PC mode.
The **Position**, **Phase**, and **Size** can also be adjusted.

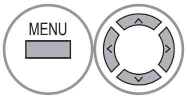

PICTURE
Move
Enter
• Advanced Color
• Picture Reset
Screen (RGB-PC)

• Sharpness 70
• Color 60
• Tint 90
• Color Temp. 50

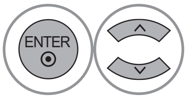

SCREEN
Move
Prev.
Resolution
Auto Config.
Position
Size
Phase
Reset
1024 x 768
1280 x 768

✓ 1360 x 768

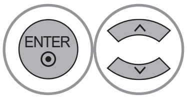
---

1 

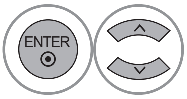
Select **PICTURE**.

2 

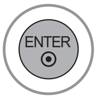
Select **Screen (RGB-PC)**.

3 

Select **Resolution**.

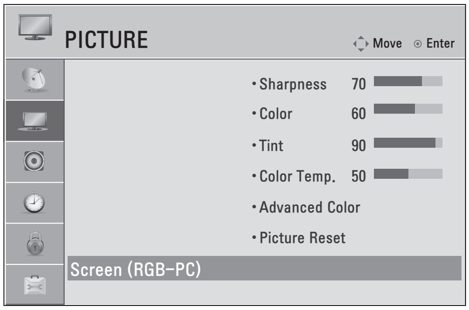
4 

Select the desired resolution.

5 

Auto Configure

Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, try using the manual settings or a different resolution or refresh rate on the PC.

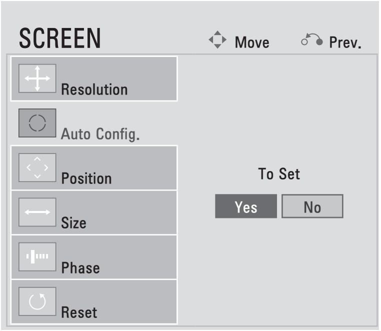


PICTURE

- Sharpness 70
- Color 60
- Tint 90
- Color Temp. 50
- Advanced Color
- Picture Reset

Screen (RGB-PC)

➡



SCREEN

Move
Prev.
Resolution
Auto Config.
Position
Size
Phase
Reset
To Set
Yes
No

1 Select **PICTURE**.

2 Select **Screen (RGB-PC)**.

3 Select **Auto config**.

4 Select **Yes**.

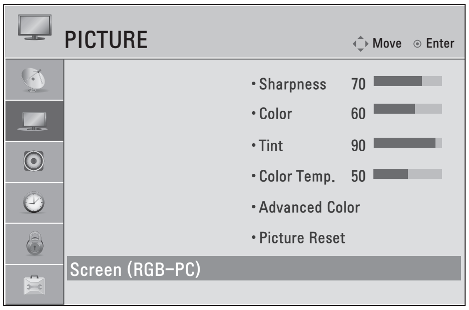
5

- If the position of the image is still not correct, try Auto adjustment again.
- If picture needs to be adjusted again after Auto adjustment in RGB-PC, you can adjust the **Position**, **Size** or **Phase**.

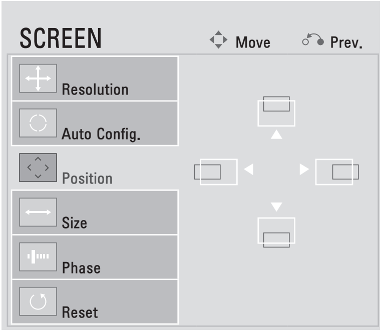
Adjustment for screen Position, Size, and Phase

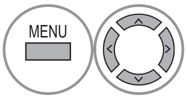
If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.

This feature operates only in RGB-PC mode.

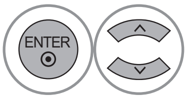

PICTURE
Move
Enter
• Advanced Color
• Picture Reset
Screen (RGB-PC)

• Sharpness 70
• Color 60
• Tint 90
• Color Temp. 50

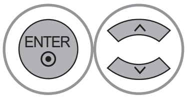

SCREEN
Move
Prev.
Resolution
Auto Config.
Position
Size
Phase
Reset

1 

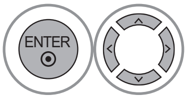
Select **PICTURE**.

2 

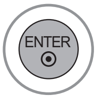
Select **Screen (RGB-PC)**.

3 

Select **Position**, **Size**, or **Phase**.

4 

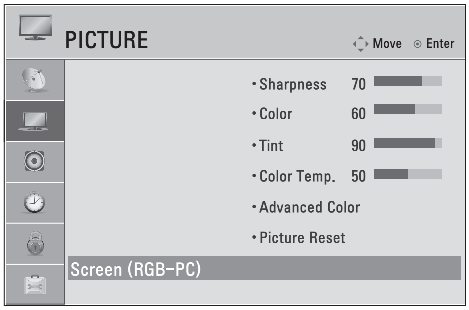
Make appropriate adjustments.

5 

- **Position**: This function is to adjust picture to left/right and up/down as you prefer.
- **Size**: This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.
- **Phase**: This function allows you to remove any horizontal noise and clear or sharpen the image of characters.

Screen Reset (Reset to original factory values)

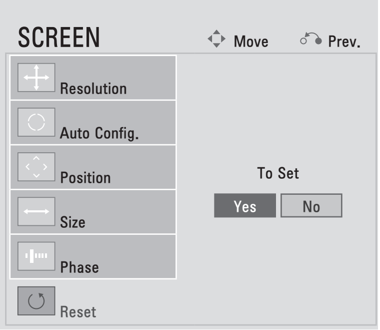
Returns **Position**, **Size**, and **Phase** to the default factory settings.
This feature operates only in RGB-PC mode.



PICTURE
Move
Enter

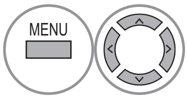
- Sharpness 70
- Color 60
- Tint 90
- Color Temp. 50
- Advanced Color
- Picture Reset

Screen (RGB-PC)

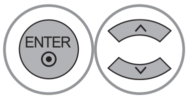


SCREEN
Move
Prev.
Resolution
Auto Config.
Position
Size
Phase
Reset
To Set
Yes
No

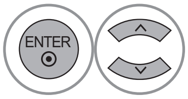
---

1 

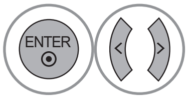
Select **PICTURE**.

2 

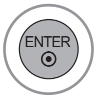
Select **Screen (RGB-PC)**.

3 

Select **Reset**.

4 

Select **Yes**.

5 

WATCHING TV / CHANNEL CONTROL

TURNING ON THE TV

① First, connect the power cord correctly.
At this moment, the TV switches to standby mode.

- In standby mode to turn TV on, press the ⏻/I button on the TV or press the **POWER** button on the remote control.

② Select the viewing source by using the **INPUT** button on the remote control.

③ When finished using the TV, press the **POWER** button on the remote control. The TV reverts to standby mode.

NOTE

▶ If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

CHANNEL SELECTION

① Press the **CH(∧or∨)** or **NUMBER** buttons to select a channel number.

VOLUME ADJUSTMENT

Adjust the volume to suit your personal preference.

① Press the **VOL (+** or **-)** button to adjust the volume.

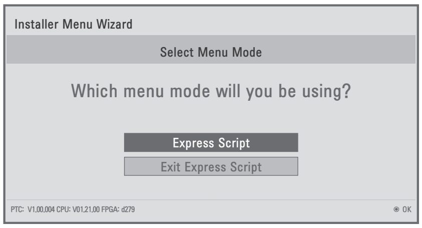
② If you want to switch the sound off, press the **MUTE** button.

③ You can cancel the Mute function by pressing the **MUTE** or **VOL (+** or **-)** button.

INITIAL SETTING

This Function guides the user to easily set the essential items for viewing the TV for the first time when purchasing the TV. It will be displayed on the screen when turning the TV on for the first time. It can also be activated from the user menus.

Selecting Menu Mode

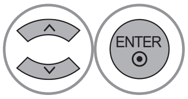

Installer Menu Wizard

Select Menu Mode

Which menu mode will you be using?

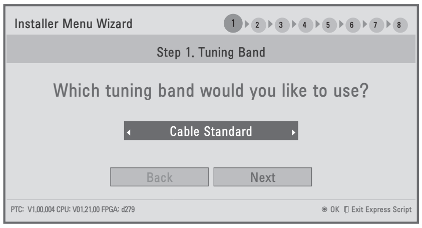
Express Script
Exit Express Script
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279
OK

1



Select the **Express Script**.

Step 1. Tuning Band


Installer Menu Wizard

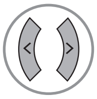
Step 1. Tuning Band

Which tuning band would you like to use?

Cable Standard

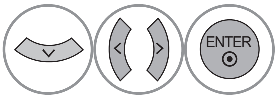
1
2
3
4
5
6
7
8
Back
Next
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279
OK
Exit Express Script

2



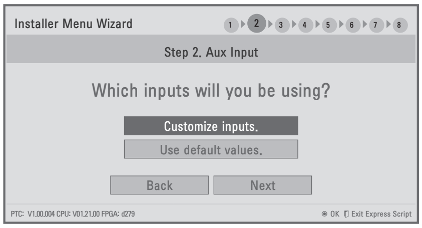
Select the desired **Tuning Band**.

3



Select **Next**.

Step 2. Aux Input

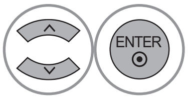

Installer Menu Wizard

Step 2. Aux Input

Which inputs will you be using?

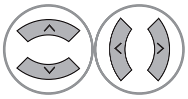
1
2
3
4
5
6
7
8
Customize inputs.
Use default values.
Back
Next
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279
OK
Exit Express Script

4



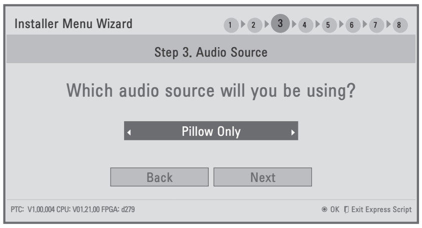
Select **Customize Inputs**.

5



Select the input you want to enable or disable.

Step 3. Audio Source


Installer Menu Wizard

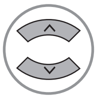
Step 3. Audio Source

Which audio source will you be using?

Pillow Only

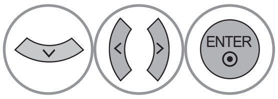
1
2
3
4
5
6
7
8
Back
Next
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279
OK
Exit Express Script

6



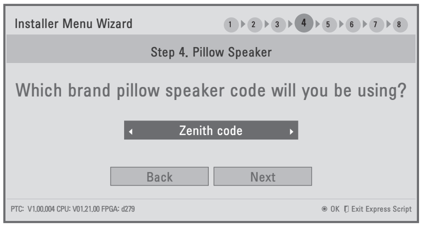
Select the desired **Audio Source**.

7



Select **Next**.

Step 4. Pillow Speaker


Installer Menu Wizard

Step 4. Pillow Speaker

Which brand pillow speaker code will you be using?

Zenith code

1
2
3
4
5
6
7
8
Back
Next

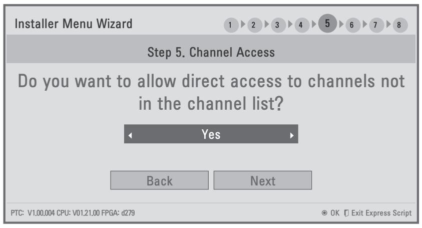
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279

OK
Exit Express Script

8 Select **Pillow Speaker Code**.

9 Select **Next**.

Step 5. Channel Access


Installer Menu Wizard

Step 5. Channel Access

Do you want to allow direct access to channels not in the channel list?

Yes

1
2
3
4
5
6
7
8
Back
Next

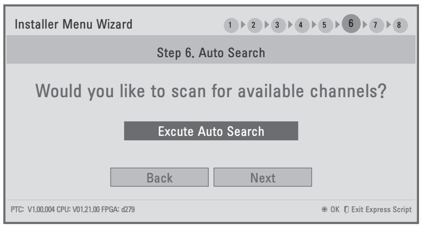
PTC: V1.00.004 CPU: V01.21.00 FPGA: d279

OK
Exit Express Script

10 Select **Yes** or **No**.

11 Select **Next**.

Step 6. Auto Search


Installer Menu Wizard

Step 6. Auto Search

Would you like to scan for available channels?

Excute Auto Search

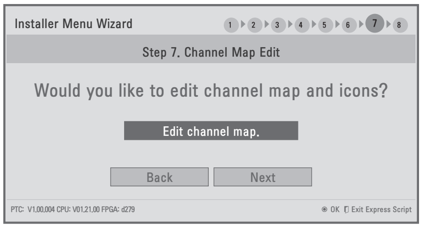
1
2
3
4
5
6
7
8
Back
Next

PTC: V1.00.004 CPU: V01.21.00 FPGA: d279

OK
Exit Express Script

12 Select **Excute Auto Search** to start the channel search.

Step 7. Channel Map Edit


Installer Menu Wizard

Step 7. Channel Map Edit

Would you like to edit channel map and icons?

Edit channel map.

1
2
3
4
5
6
7
8
Back
Next

PTC: V1.00.004 CPU: V01.21.00 FPGA: d279

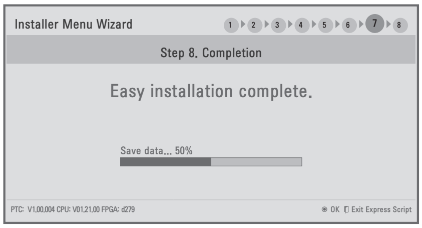
OK
Exit Express Script

13 Select **Edit channel map**.

14 Make appropriate adjustments.

Select **Next**.

Step 8. Completion


Installer Menu Wizard

Step 8. Completion

Easy installation complete.

Save data... 50%

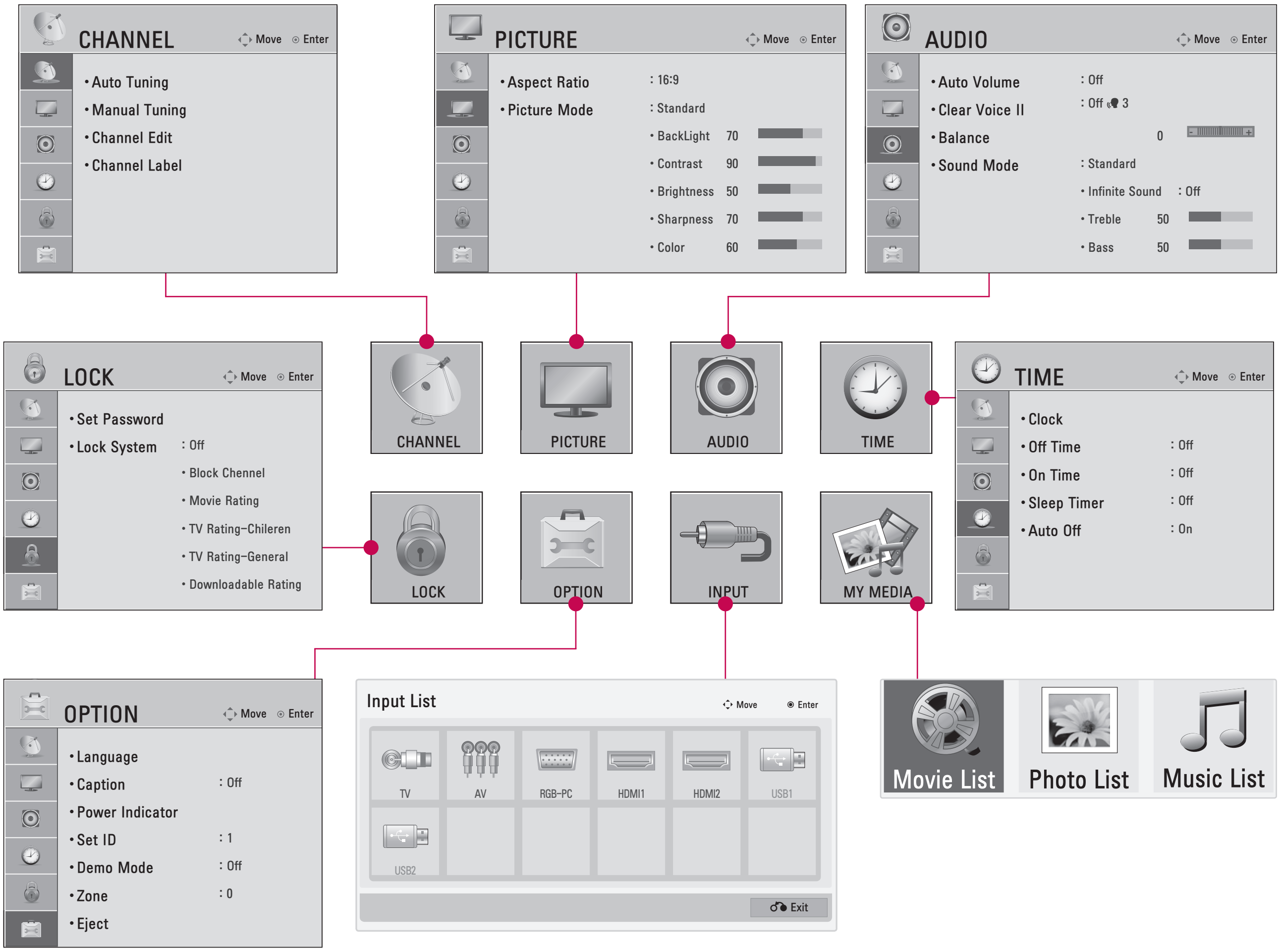
1
2
3
4
5
6
7
8

PTC: V1.00.004 CPU: V01.21.00 FPGA: d279

OK
Exit Express Script

ON-SCREEN MENUS SELECTION

Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.



CHANNEL
- Auto Tuning
- Manual Tuning
- Channel Edit
- Channel Label

PICTURE
- Aspect Ratio : 16:9
- Picture Mode : Standard
  - BackLight 70
  - Contrast 90
  - Brightness 50
  - Sharpness 70
  - Color 60

AUDIO
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50

LOCK
- Set Password
- Lock System : Off
  - Block Chennel
  - Movie Rating
  - TV Rating-Chileren
  - TV Rating-General
  - Downloadable Rating

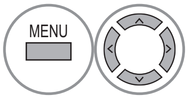
TIME
- Clock
- Off Time : Off
- On Time : Off
- Sleep Timer : Off
- Auto Off : On

OPTION
- Language
- Caption : Off
- Power Indicator
- Set ID : 1
- Demo Mode : Off
- Zone : 0
- Eject

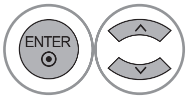
Input List
TV, AV, RGB-PC, HDMI1, HDMI2, USB1, USB2
Exit

Movie List | Photo List | Music List

---

1 

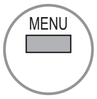
Display each menu.

2 

Select a menu item.

3

Enter to the pop up menu.

4 

Return to TV viewing.

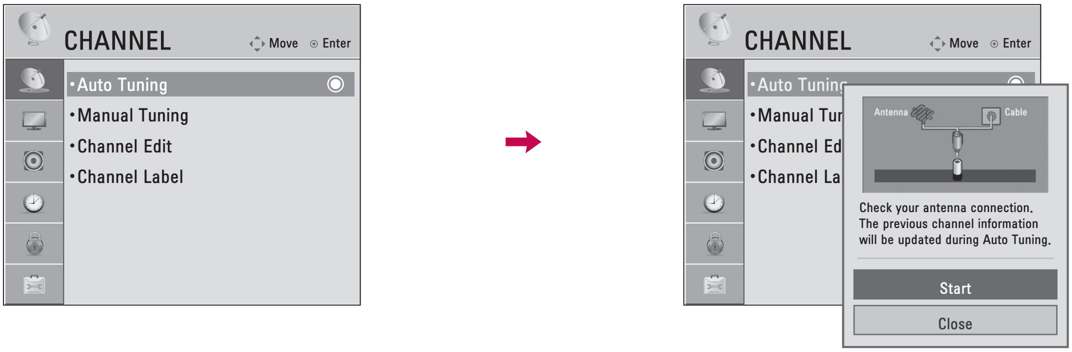
CHANNEL SETUP

Auto Scan (Auto Tuning)

Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.

Run this function if you change your residence or move the TV. Also, make sure to run this function with the antenna connected during TV broadcasting hours.

Auto Tuning memorizes only the channels available at the time.



Check your antenna connection. The previous channel information will be updated during Auto Tuning.

1 MENU Select **CHANNEL**.

2 ENTER Select **Auto Tuning**.

3 ENTER Select **Yes**.

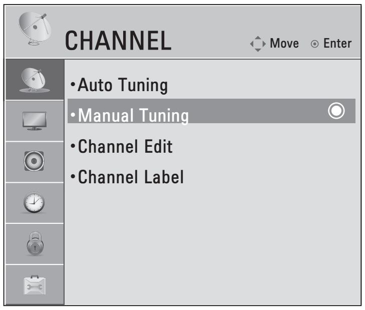
4 ENTER Run **Auto tuning**.

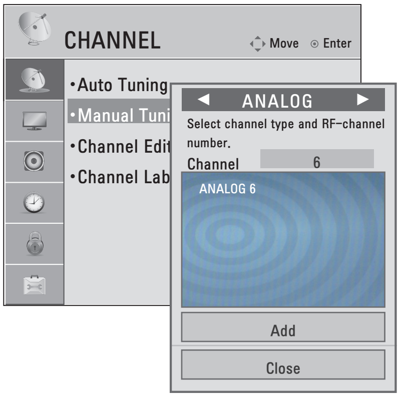
5 MENU Return to TV viewing.

- The TV will ask for a password if parental control has been activated (LOCK Menu). Use the password you set up in the LOCK Menu to allow a channel search.
- When setting the Auto tuning or Manual tuning, the number of maximum channel you can store is 700. It is subject to change depending on the broadcasting signal environment.
- Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.

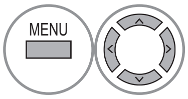
Add / Delete Channel (Manual Tuning)

If selecting DTV or CADTV input signal, you can view the on-screen signal strength monitor to see the quality of the signal being received.

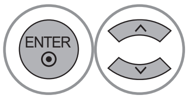

CHANNEL
Move
Enter
•Auto Tuning
•Manual Tuning
•Channel Edit
•Channel Label


CHANNEL
Move
Enter
•Auto Tuning
•Manual Tuni
•Channel Edit
•Channel Lab
◄ ANALOG ►
Channel
6
ANALOG 6
Add
Close

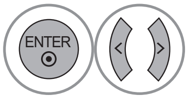
Select channel type and RF-channel number.

1 

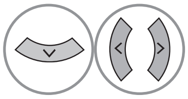
Select **CHANNEL**.

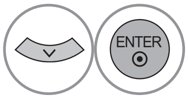
2 

Select **Manual Tuning**.

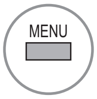
3 

Select **DIGITAL** or **ANALOG**.

4 
Select channel you want to add or delete.

5 

Select **Add** or **Delete**.

6 

Return to TV viewing.

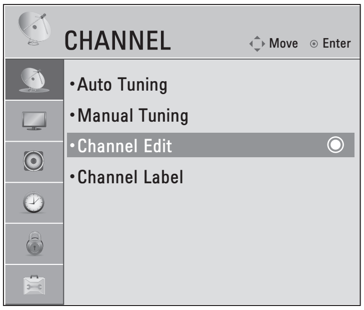
- The TV will ask for a password if parental control has been activated (**LOCK** Menu). Use the password you set up in the **LOCK** Menu to allow a channel search.
- When setting the Auto tuning or Manual tuning, the number of maximum channels you can store is 700.
  It is subject to change depending on the broadcasting signal environment.

Channel Editing

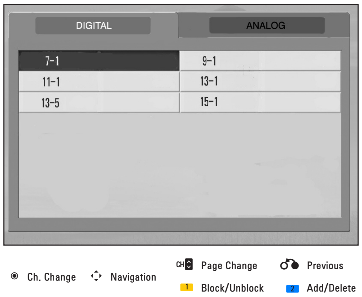
The channels in the Channel Edit List are displayed in black and the channels deleted from the Channel Edit List are displayed in blue.

When a channel number is deleted, it means that you will be unable to select it using CH∧∨ button during TV viewing.

If you wish to select the deleted channel, directly enter the channel number with the NUMBER buttons or select it in the **Channel Edit** menu.


CHANNEL
Move
Enter
•Auto Tuning
•Manual Tuning
•Channel Edit
•Channel Label

➡


DIGITAL
ANALOG
7-1
9-1
11-1
13-1
13-5
15-1
Ch. Change
Navigation
CH Page Change
Previous
1 Block/Unblock
2 Add/Delete

---

1. MENU Select **CHANNEL**.
2. ENTER Select **Channel Edit**.
3. ENTER Select a channel.
4. CC Select channel you want to add or delete.
5. MENU Return to TV viewing.

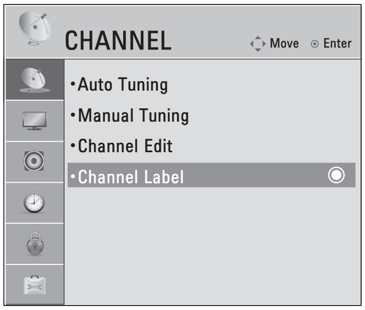
NOTE

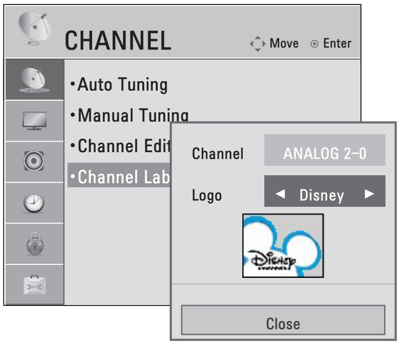
▶ Refer to the commercial mode setup guide after being set the intuitive menu.

CHANNEL LABEL

Choose preset labels for your channels.

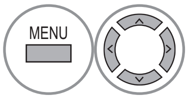
If a channel label is provided on the signal from the broadcasting station, the TV displays a short name for a channel even if you didn't preset a label for the channel.


CHANNEL
Move
Enter
•Auto Tuning
•Manual Tuning
•Channel Edit
•Channel Label

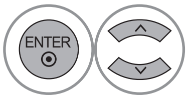

CHANNEL
Move
Enter
•Auto Tuning
•Manual Tuning
•Channel Edit
•Channel Lab
Close

Channel ANALOG 2-0

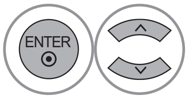
Logo ◄ Disney ►

1


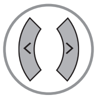
Select **CHANNEL**.

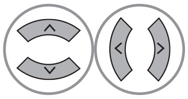
2


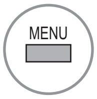
Select **Channel Edit**.

3


Select a channel.

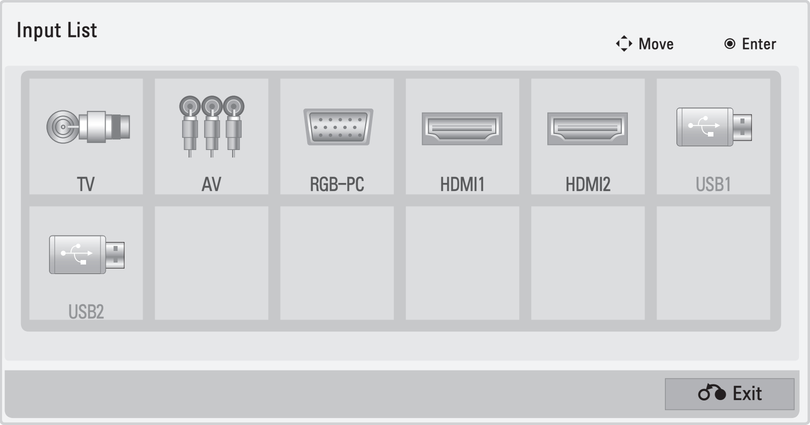
4

Select a channel to set logo.

5

Select the appropriate logo for the channel.

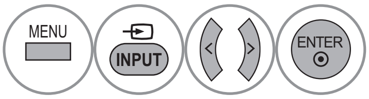
6


Return to TV viewing.

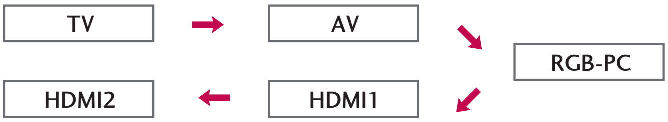
INPUT LIST


Input List
Move
Enter
TV
AV
RGB-PC
HDMI1
HDMI2
USB1
USB2
Exit

1


MENU
INPUT
ENTER

Select the desired input source.

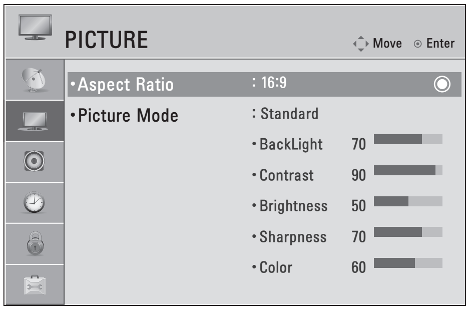

TV
AV
RGB-PC
HDMI1
HDMI2

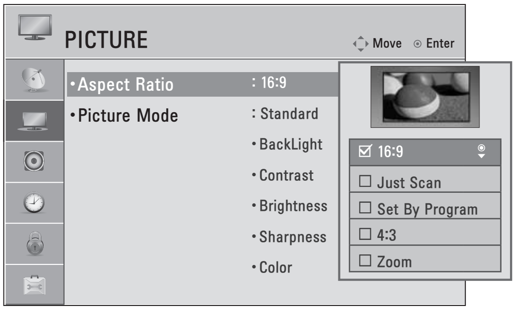
- **TV**: Select it to watch over-the-air, cable and digital cable broadcasts.
- **AV**: Select them to watch a VCR or other external equipment.
- **RGB-PC**: Select it to view PC input.
- **HDMI1-2**: Select them to watch high definition devices.

PICTURE CONTROL

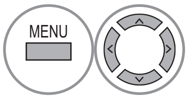
PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV.
You can select a different aspect ratio depending on input source (analog broadcasting, digital broadcasting, aux).

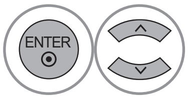

PICTURE
Move Enter
• Aspect Ratio : 16:9
• Picture Mode : Standard
• BackLight 70
• Contrast 90
• Brightness 50
• Sharpness 70
• Color 60


PICTURE
Move Enter
• Aspect Ratio : 16:9
• Picture Mode : Standard
• BackLight
• Contrast
• Brightness
• Sharpness
• Color

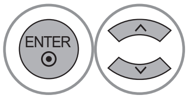
☑ 16:9
☐ Just Scan
☐ Set By Program
☐ 4:3
☐ Zoom

1


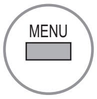
Select **PICTURE**.

2


Select **Aspect Ratio**.

3


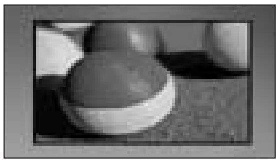
Select the desired picture format.

4


Return to TV viewing.

16:9

Adjust the picture horizontally, in a linear proportion to fill the entire screen.

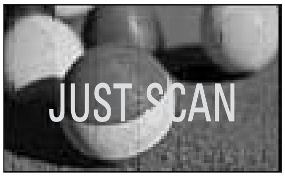


Just Scan

Normally the edges of video signals are cropped 1-2%. Just Scan turns off this cropping and shows the complete video.

Notes: If there is noise on the edges of the original signal, it will be visible when Just Scan is activated.

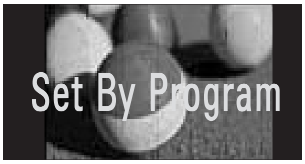
Just Scan operates only with DTV/CADTV/ HDMI-DTV/DVI-DTV (720p/1080i/ 1080p), Component(720p/1080i) input sources.



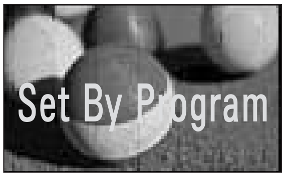
Set by program

Selects the proper picture proportion to match the source’s image.

(4:3 → 4:3)

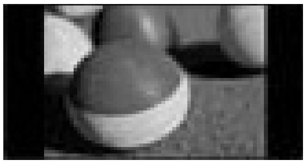


(16:9 → 16:9)



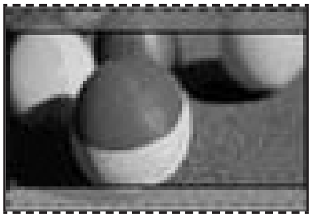
4:3

Choose 4:3 when you want to view a picture with an original 4:3 aspect ratio.



Zoom

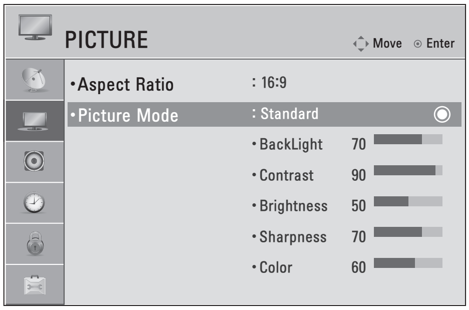
Choose Zoom when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.

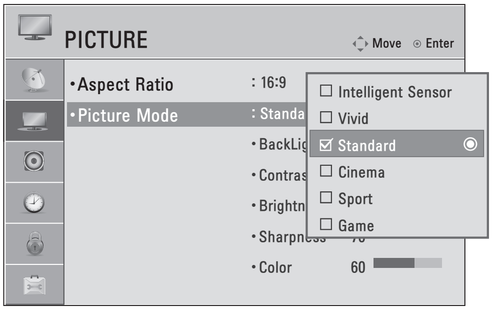


PRESET PICTURE SETTINGS

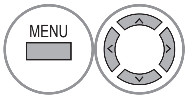
Picture Mode - Preset

There are factory presets for picture settings available in the user menus.
You can use a preset, change each setting manually.

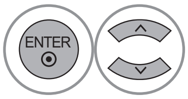

PICTURE
Move Enter
- Aspect Ratio : 16:9
- Picture Mode : Standard
  - BackLight 70
  - Contrast 90
  - Brightness 50
  - Sharpness 70
  - Color 60


PICTURE
Move Enter
- Aspect Ratio : 16:9
- Picture Mode : Standa
  - BackLig
  - Contras
  - Brightn
  - Sharpn
  - Color 60

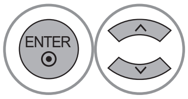
☐ Intelligent Sensor
☐ Vivid
☑ Standard
☐ Cinema
☐ Sport
☐ Game

1


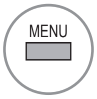
Select **PICTURE**.

2


Select **Picture Mode**.

3


Select **Intelligent Sensor, Vivid**, **Standard**, **Cinema**, **Sport** or **Game**.

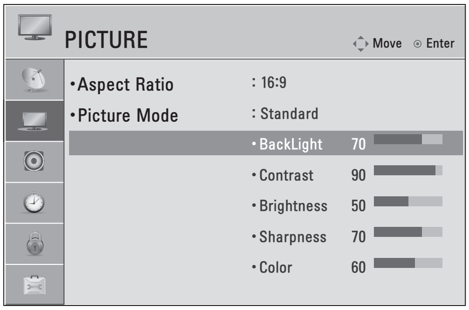
4


Return to TV viewing.

- When selecting **Intelligent Sensor** is changed to **Auto** automatically.
- When selecting **Intelligent Sensor**, it is changed contrast, brightness, sharpness, color and tint automatically.
- **Vivid**, **Standard**, **Natural**, **Cinema**, **Sport**, and **Game** Settings are preset for the optimum picture quality at the factory and are adjustable.
- **Intelligent Sensor**: The most suitable picture is automatically adjusted according to the surrounding conditions.
- **Vivid**: This is the mode to maximize the effect of the video in the retail store. Strengthen the contrast, brightness, color and sharpness for vivid picture.
- **Standard**: This is the mode to realize optimum viewing condition for the general user.
- **Cinema**: This mode optimizes video for watching movies.
- **Sport**: This is the video mode to emphasize dynamic video and primary color (e.g, white, uniform, grass, sky blue etc.) by realizing the optimal screen for sports.
- **Game**: This is the mode to realize fast response speed in a fast gaming screen.

MANUAL PICTURE ADJUSTMENT - USER MODE

Adjust the picture appearance to suit your preference and viewing situations.



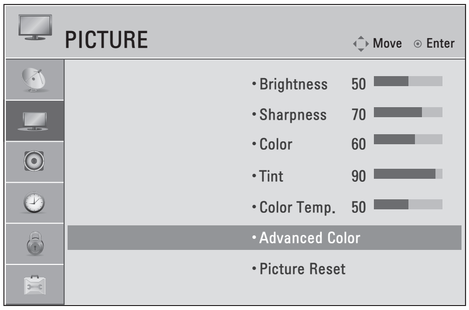
- Aspect Ratio : 16:9
- Picture Mode : Standard
  - BackLight 70
  - Contrast 90
  - Brightness 50
  - Sharpness 70
  - Color 60

---

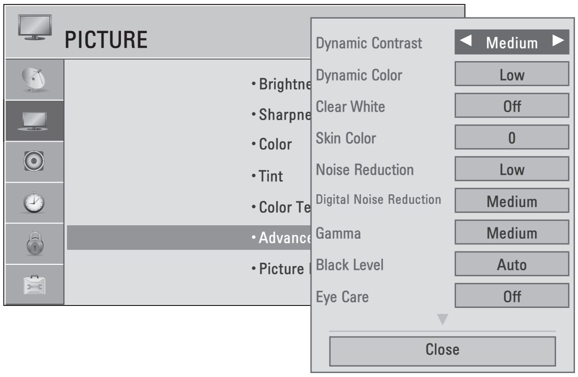
1. Select **PICTURE**.
2. Select **Picture Mode**.
3. Select **Intelligent Sensor, Vivid**, **Standard**, **Cinema**, **Sport** or **Game**.
4. Select **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color**, **Tint** or **Color Temp.**.
5. Make appropriate adjustments.
6. Return to TV viewing.

PICTURE IMPROVEMENT TECHNOLOGY

Dynamic Contrast: Optimizes the contrast automatically according to the brightness of the reflection.
Dynamic Color: Adjusts the color of the reflection automatically to reproduce as close as possible natural colors.
Noise Reduction: Removes interference up to the point where it does not damage the original picture.
Gamma: High gamma values display whitish images and low gamma values display high contrast images.
Color Gamut: Maximize the utilization of color to increase color quality.
Edge Enhancer: Show clearer and distinctive yet natural edges in of the video. This function is enabled in "**Picture Mode - Cinema**".



- Brightness 50
- Sharpness 70
- Color 60
- Tint 90
- Color Temp. 50
- Advanced Color
- Picture Reset



Dynamic Contrast	Medium
Dynamic Color	Low
Clear White	Off
Skin Color	0
Noise Reduction	Low
Digital Noise Reduction	Medium
Gamma	Medium
Black Level	Auto
Eye Care	Off

---

1 Select **PICTURE**.

2 Select **Advanced Control**.

3 Select your desired options.

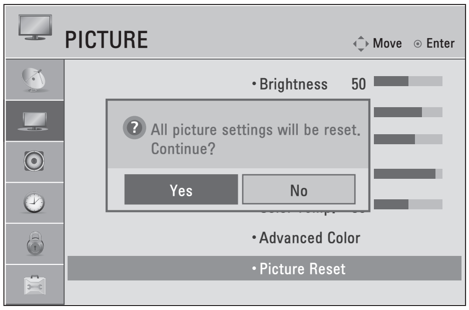
4 Make appropriate adjustments.

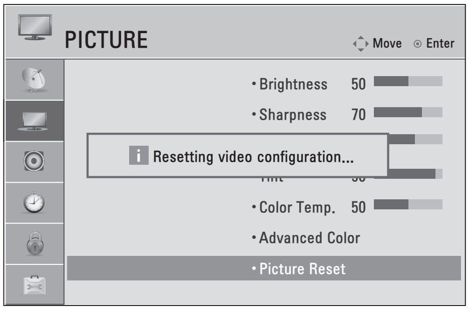
5 Return to TV viewing.

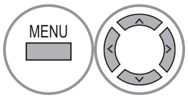
Dynamic Contrast	■ Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Color	■ Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Clear White	■ Make the white area of screen brighter and more white.
Skin Color	■ It detects the skin area of video and adjusts it to express a natural skin color.
Noise Reduction	■ Reduces screen noise without compromising video quality.
Digital Noise Reduction	■ Removes noise caused by compressing video.
Gamma	Low : Make dark and middle gray level area of the picture brighter. Medium: Express original picture levels. High: Make dark and middle gray level area of the picture darker. ■ You can adjust brightness of dark area and middle gray level area of the picture.
Black Level	Low: The reflection of the screen gets darker. High: The reflection of the screen gets brighter. Auto: Realizing the black level of the screen and set it to High or Low automatically. ■ Set black level of the screen to proper level. ■ This function enables to select 'Low' or 'High' in the following mode: AV (NTSC-M), HDMI or Component. Otherwise, 'Black level' is set to 'Auto'.
Eye Care	■ Adjust the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures.
Real Cinema	■ Makes video clips recorded in film look more natural by eliminating judder effect.
Color Gamut	■ Maximize the utilization of colors to increase color quality. Standard: Displays standard set of colors. Wide: Increase number of colors used.
xvYCC	■ This is produces richer colors. ■ This feature represents rich color as much as conventional video signal. ■ This function is enabled in "Picture Mode - Cinema, Expert" when a xvYCC signal is inputted through HDMI.

PICTURE RESET

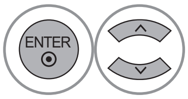
Settings of the selected picture modes return to the default factory settings.


PICTURE
Move Enter
• Brightness 50
All picture settings will be reset. Continue?
Yes No
• Advanced Color
• Picture Reset

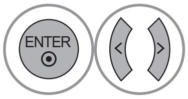

PICTURE
Move Enter
• Brightness 50
• Sharpness 70
Resetting video configuration...
• Color Temp. 50
• Advanced Color
• Picture Reset

1


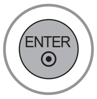
Select **PICTURE**.

2


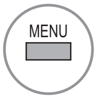
Select **Picture Reset**.

3


Select **Yes**.

4


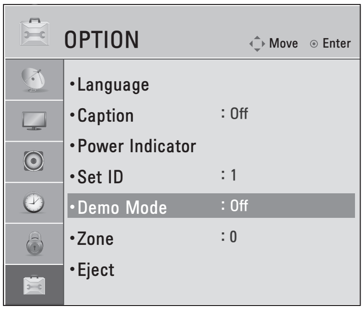
Initialize the adjusted value.

5


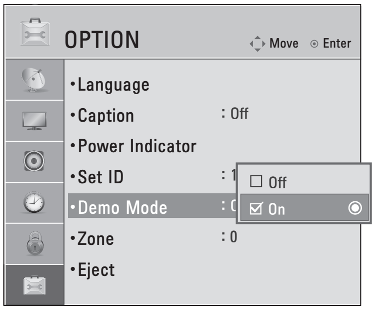
Return to TV viewing.

DEMO MODE

Displays a slide show to explain the various features of this TV.

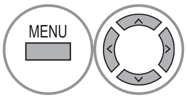


OPTION
Move Enter
•Language
•Caption : Off
•Power Indicator
•Set ID : 1
•Demo Mode : Off
•Zone : 0
•Eject

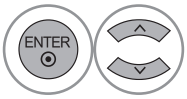


OPTION
Move Enter
•Language
•Caption : Off
•Power Indicator
•Set ID : 1
•Demo Mode
•Zone : 0
•Eject
☐ Off
☑ On

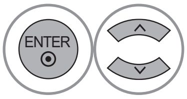
---

1 

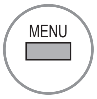
Select **OPTION**.

2 

Select **Demo Mode**.

3 

Select **On** to show the various feature of the TV.

4 

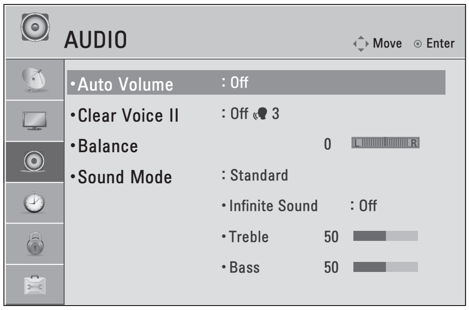
Return to TV viewing.
After a while, **Demo Mode** starts.
If you want to stop the demo, press any button(Except VOL +, - and MUTE button).

SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELER (AUTO VOLUME)

Auto Volume makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.

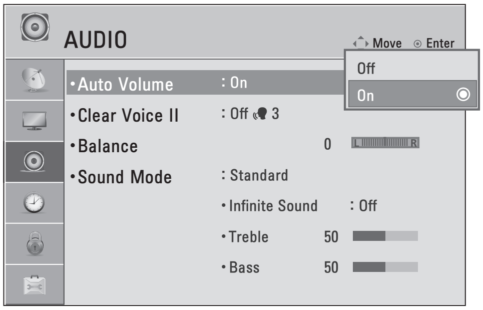
Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each program.



AUDIO

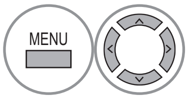
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50

➡

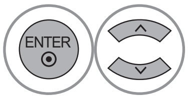


AUDIO

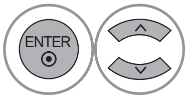
- Auto Volume : On
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50

1 

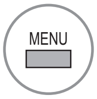
Select **AUDIO**.

2 

Select **Auto Volume**.

3 

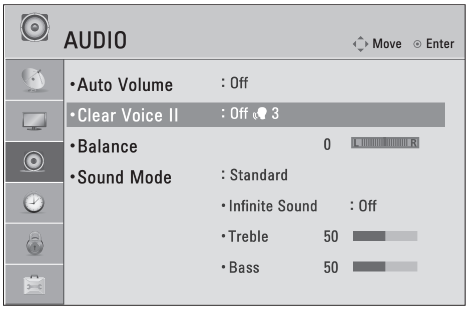
Select **On** or **Off**.

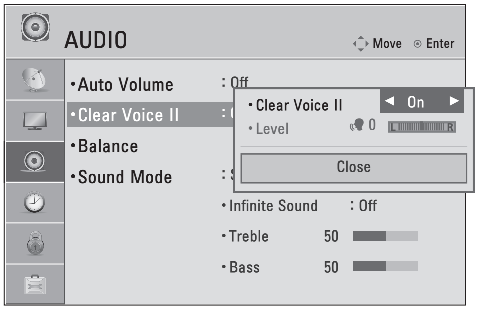
4 

Return to TV viewing.

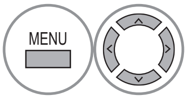
CLEAR VOICE II

By differentiating the human sound range from others, it improves the sound quality of voices.


AUDIO
Move
Enter
• Auto Volume
: Off
• Clear Voice II
: Off 3
• Balance
0
L
R
• Sound Mode
: Standard
• Infinite Sound
: Off
• Treble
50
• Bass
50

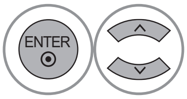

AUDIO
Move
Enter
• Auto Volume
: Off
• Clear Voice II
• Balance
• Sound Mode
• Clear Voice II
◄ On ►
• Level
0
L
R
Close
• Infinite Sound
: Off
• Treble
50
• Bass
50

1



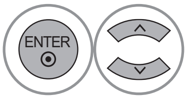
Select **AUDIO**.

2



Select **Clear Voice II**.

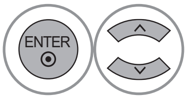
3



Select **On** or **Off**.

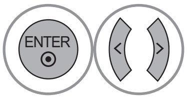
Adjustment for Clear Voice II Level With selecting **On**

4



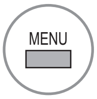
Select **Level**.

5



Make appropriate adjustments.

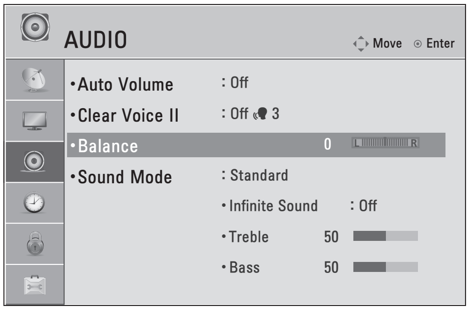
6



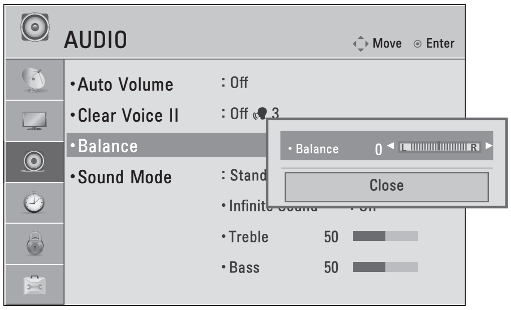
Return to TV viewing.

BALANCE

Adjust the left/right sound of speaker to suit your taste and room situations.



AUDIO
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50



AUDIO
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance
- Sound Mode : Stand
  - Infinite
  - Treble 50
  - Bass 50

- Balance 0

Close

1 Select **AUDIO**.

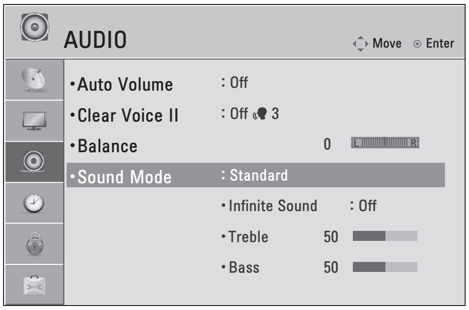
2 Select **Balance**.

3 Make appropriate adjustments.

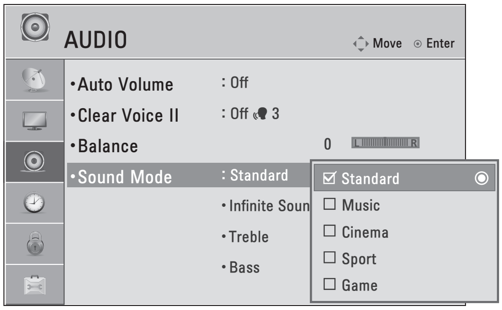
4 Return to TV viewing.

PRESET SOUND SETTINGS (SOUND MODE)

Sound Mode lets you enjoy the best sound without any special adjustment as the TV sets the appropriate sound options based on the program content.

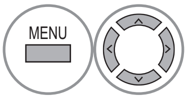


- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
- Infinite Sound : Off
- Treble 50
- Bass 50

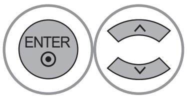


- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
- Infinite Soun
- Treble
- Bass

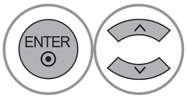
☑ Standard
☐ Music
☐ Cinema
☐ Sport
☐ Game

1


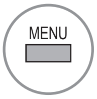
Select **AUDIO**.

2


Select **Sound Mode**.

3


Select **Standard**, **Music**, **Cinema**, **Sport**, or **Game**.

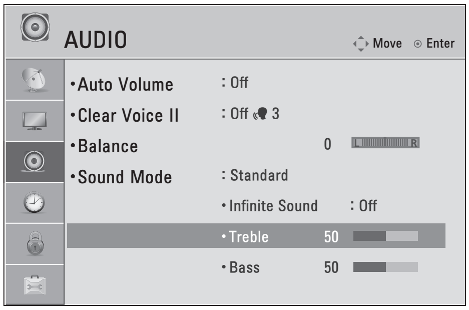
4


Return to TV viewing.

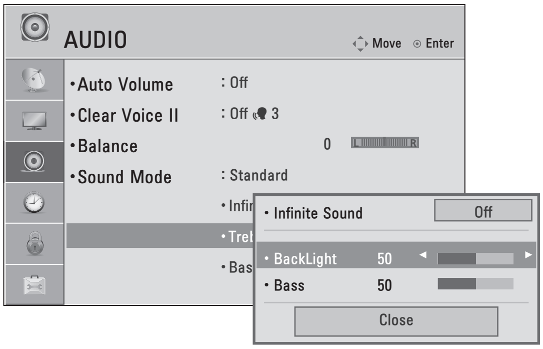
- **Standard**, **Music**, **Cinema**, **Sport**, and **Game** are preset for optimum sound quality at the factory.
- **Standard**: Offers standard-quality sound.
- **Music**: Optimizes sound for listening to music.
- **Cinema**: Optimizes sound for watching movies.
- **Sport**: Optimizes sound for watching sports events.
- **Game**: Optimizes sound for playing games.

SOUND SETTING ADJUSTMENT - USER MODE

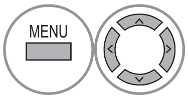
Adjust the sound to suit your taste and room situations.


AUDIO
Move
Enter

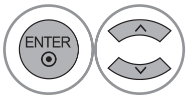
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50


AUDIO
Move
Enter
Close

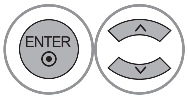
- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound Off
  - BackLight 50
  - Bass 50



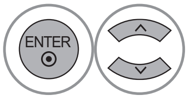
1 Select **AUDIO**.



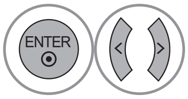
2 Select **Sound Mode**.



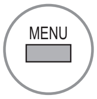
3 Select **Standard**, **Music**, **Cinema**, **Sport**, or **Game**.



4 Select **Treble** or **Bass**.



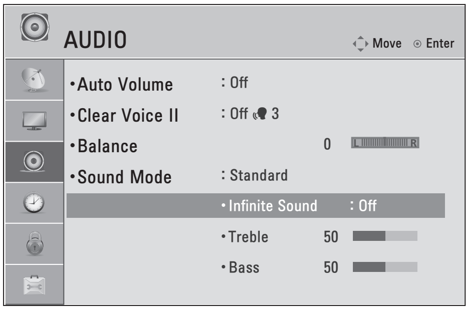
5 Make appropriate adjustments.



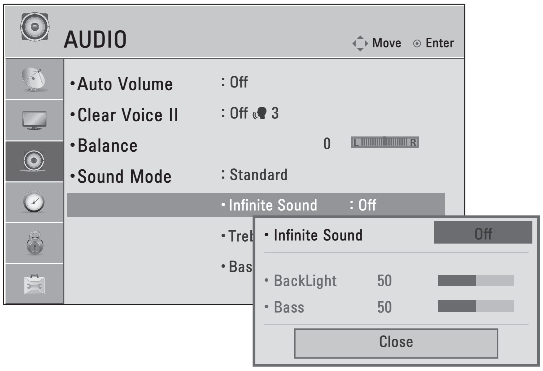
6 Return to TV viewing.

INFINITE SOUND

Select this option to sound realistic.



- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50



- Auto Volume : Off
- Clear Voice II : Off 3
- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
- Infinite Sound Off
  - BackLight 50
  - Bass 50

---

1 Select **AUDIO**.

2 Select **Infinite Sound**.

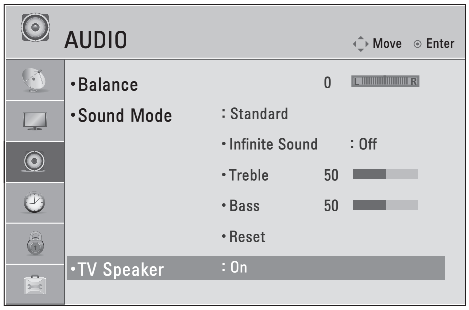
3 Select **On** or **Off**.

4 Return to TV viewing.

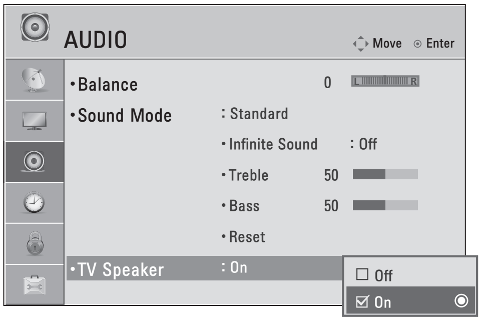
- If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.
- If you select “**Clear Voice II - On**”, **Infinite Sound** feature will not operate.
- **Infinite Sound**: Infinite Sound is a patented LG technology that solves the problem of playing 5.1 multichannel content over two speakers.

TV SPEAKERS ON/OFF SETUP

Turn the TV speakers off if using external audio equipment. (Except Pillow Speaker, Speaker out 8×)
In **AV**, **Component**, **RGB** and **HDMI** with HDMI to DVI cable, the TV speaker can be operational even when there is no video signal.
If you wish to use an external Hi-Fi system or a Infinite System, turn off the TV's internal speakers.

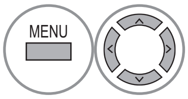


- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50
  - Reset
- TV Speaker : On

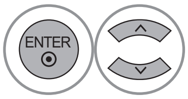


- Balance 0
- Sound Mode : Standard
  - Infinite Sound : Off
  - Treble 50
  - Bass 50
  - Reset
- TV Speaker : On

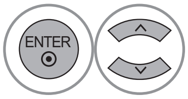
☐ Off
☑ On

1


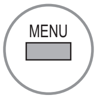
Select **AUDIO**.

2


Select **TV Speaker**.

3


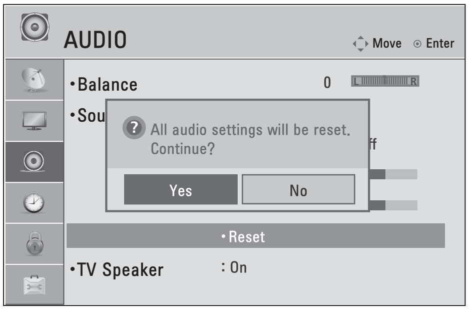
Select **On** or **Off**.

4


Return to TV viewing.

AUDIO RESET

Settings of the selected Sound Mode return to the default factory settings.


AUDIO
Move
Enter

• Balance 0

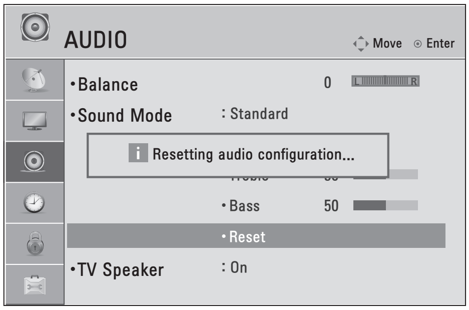
• Sou

All audio settings will be reset. Continue?

Yes
No

• Reset

• TV Speaker : On


AUDIO
Move
Enter

• Balance 0

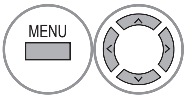
• Sound Mode : Standard

Resetting audio configuration...

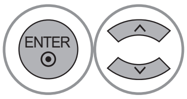
• Bass 50

• Reset

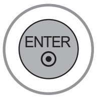
• TV Speaker : On

1 

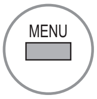
Select **AUDIO**.

2 

Select **Reset**.

3 

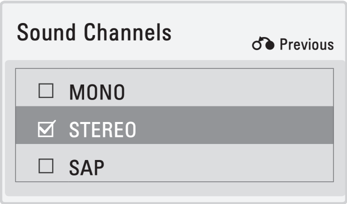
Initialize the adjusted value.

4 

Return to TV viewing.

STEREO/SAP BROADCAST SETUP

For Analog only: This TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program if the station transmits an additional sound signal. Mono sound is automatically used if the broadcast is only in Mono.



Sound Channels

☐ MONO

☑ STEREO

☐ SAP

1

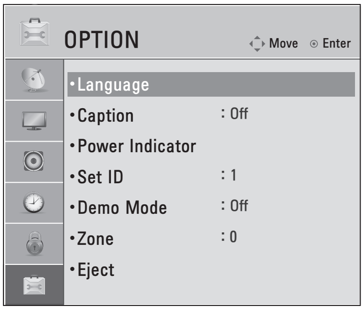
Each time you press the **SAP** button,
Analog: **Mono**, **Stereo**, or **SAP** appear in turn.

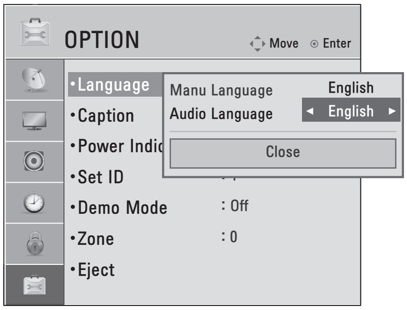
Digital: **English**, **Spanish**

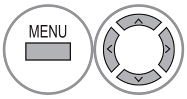
- If other languages available on the digital signal, select them with the **SAP** button.

AUDIO LANGUAGE

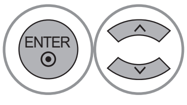
Other languages may be available if a digital signal is provided by the broadcasting station.
This feature operates only in DTV mode.


OPTION
Move
Enter
• Language
• Caption : Off
• Power Indicator
• Set ID : 1
• Demo Mode : Off
• Zone : 0
• Eject

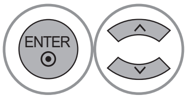

OPTION
Move
Enter
• Language
• Caption
• Power Indic
• Set ID
• Demo Mode : Off
• Zone : 0
• Eject
Manu Language English
Audio Language ◄ English ►
Close

1


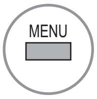
Select **OPTION**.

2


Select **Audio Language**.

3


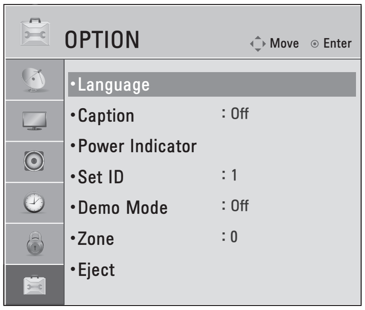
Select your desired language.

4


Return to TV viewing.

ON-SCREEN MENUS LANGUAGE SELECTION

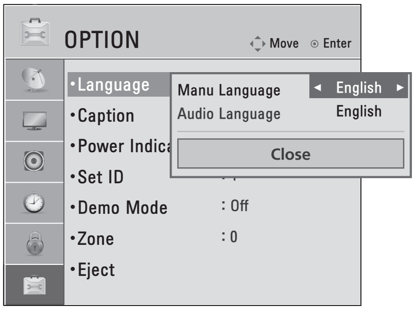
The menus can be shown on the screen in the selected language.



OPTION

Move Enter

- Language
- Caption : Off
- Power Indicator
- Set ID : 1
- Demo Mode : Off
- Zone : 0
- Eject



OPTION

Move Enter

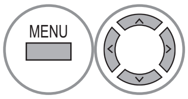
- Language
- Caption
- Power Indica
- Set ID
- Demo Mode : Off
- Zone : 0
- Eject

Manu Language ◄ English ►

Audio Language English

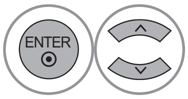
Close

1



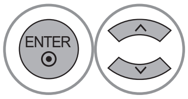
Select **OPTION**.

2



Select **Menu Language**.

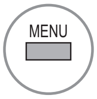
3



Select your desired language.

From this point on, the on-screen menus will be shown in the selected language.

4



Return to TV viewing.

CAPTION MODE

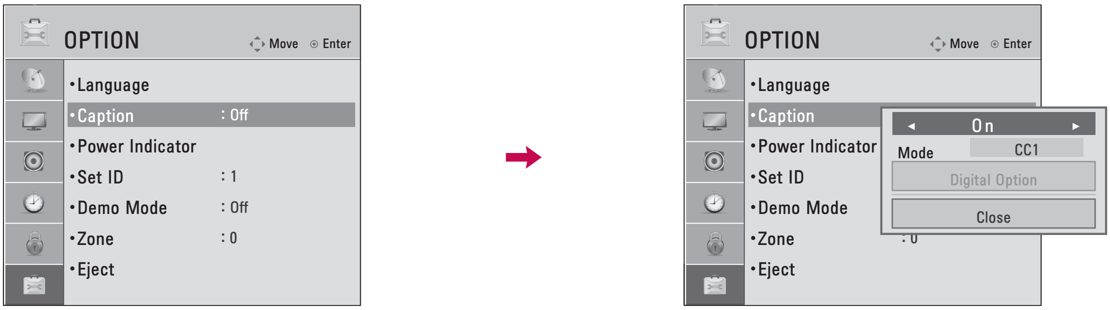
Caption must be provided to help people with hearing loss watch TV.
This feature operates only in TV, AV1-2 mode.

1 Select Caption **On** or **Off**.

- When selecting **Off**, Sub-menus for Analog, DTV, and Digital Option become disabled.

Analog Broadcasting System Captions

Captions provided to help people with hearing loss watch TV. Select a caption mode for displaying captioning information if provided on a program. Analog caption displays information at any position on the screen and is usually the program's dialog. Caption/Text, if provided by the broadcaster, would be available for both digital and analog channels on the Antenna/Cable. This TV is programmed to memorize the caption/text mode which was last set when you turned the power off. This function is only available when **Caption** Mode is set **On**.



OPTION
- Language
- Caption : Off
- Power Indicator
- Set ID : 1
- Demo Mode : Off
- Zone : 0
- Eject

OPTION
- Language
- Caption
- Power Indicator
- Set ID
- Demo Mode
- Zone
- Eject

◄ On ►
Mode CC1

---

1 Select **OPTION**.

2 Select **Caption**.

3 Select **On**.

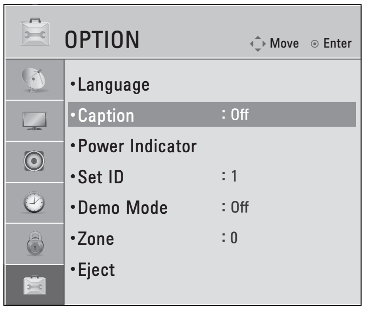
4 Select **CC1-4** or **Text1-4**.

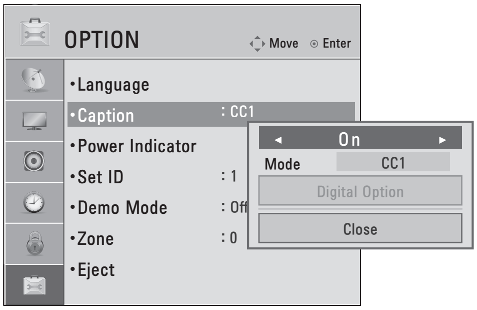
5 Return to TV viewing.

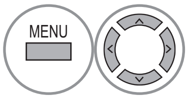
- **CAPTION**
  The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.
- **TEXT**
  The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.

Digital Broadcasting System Captions

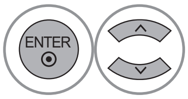
Choose the language you want the DTV Captions to appear in.
Other Languages can be chosen for digital sources only if they are included on the program.
This function in only available when **Caption** Mode is set **On**.


OPTION
Move Enter
• Language
• Caption : Off
• Power Indicator
• Set ID : 1
• Demo Mode : Off
• Zone : 0
• Eject

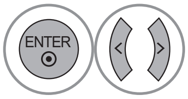

OPTION
Move Enter
• Language
• Caption : CC1
• Power Indicator
• Set ID : 1
• Demo Mode : Off
• Zone : 0
• Eject
◄ On ►
Mode CC1
Digital Option
Close

1 

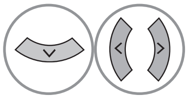
Select **OPTION**.

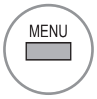
2 

Select **Caption**.

3 

Select **On**.

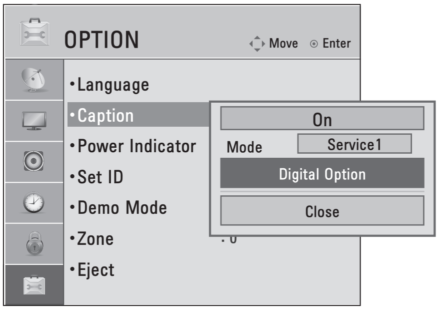
4 
Select **CC1-4**, **Text1-4**, or **Service1-6**.

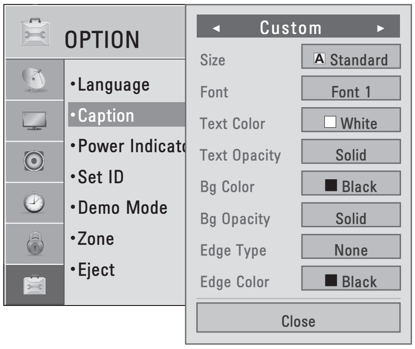
5 

Return to TV viewing.

Caption Option

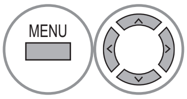
Customize the DTV captions that appear on your screen.
This function in only available when **Caption** Mode is set **On**.


OPTION
Move
Enter
• Language
• Caption
• Power Indicator
• Set ID
• Demo Mode
• Zone
• Eject
On
Mode
Service1
Digital Option
Close

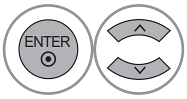

OPTION
• Language
• Caption
• Power Indicato
• Set ID
• Demo Mode
• Zone
• Eject
◄ Custom ►
Close

Size: Standard
Font: Font 1
Text Color: White
Text Opacity: Solid
Bg Color: Black
Bg Opacity: Solid
Edge Type: None
Edge Color: Black

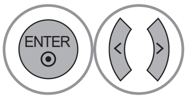
---

1 

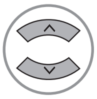
Select **OPTION**.

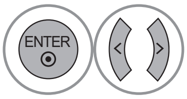
2 

Select **Caption**.

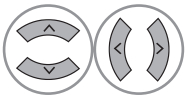
3 

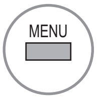
Select **On**.

4 
Select **Digital Option**.

5 

Select **Custom**.

6 
Customize the **Size**, **Font**, etc., to your preference.
A preview icon is provided at the bottom of the screen, use it to see the caption language.

7 

Return to TV viewing.

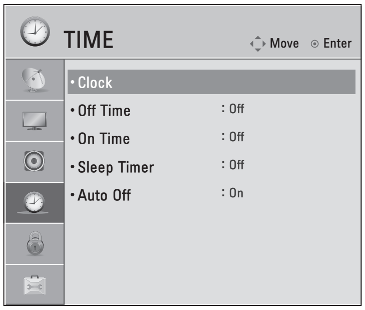
- **Size**: Set the word size.
- **Font**: Select a typeface for the text.
- **Text Color**: Choose a color for the text.
- **Text Opacity**: Specify the opacity for the text color.
- **Bg (Background) Color**: Select a background color.
- **Bg (Background) Opacity**: Select the opacity for the background color.
- **Edge Type**: Select an edge type.
- **Edge Color**: Select a color for the edges.

TIME SETTING

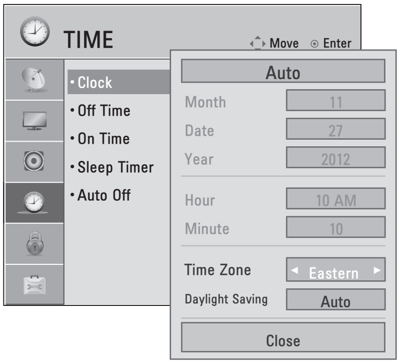
CLOCK SETTING

Auto Clock Setup

The time is set automatically from a digital channel signal.
The digital channel signal includes information for the current time provided by the broadcasting station.
Set the clock manually if the current time is set incorrectly by the auto clock function.

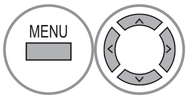

TIME
Move
Enter

• Clock
• Off Time : Off
• On Time : Off
• Sleep Timer : Off
• Auto Off : On


TIME
Move
Enter
• Clock
• Off Time
• On Time
• Sleep Timer
• Auto Off
Close

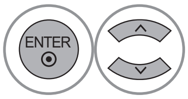
Auto
Month 11
Date 27
Year 2012
Hour 10 AM
Minute 10
Time Zone ◄ Eastern ►
Daylight Saving Auto

1



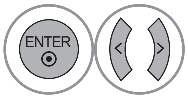
Select **TIME**.

2



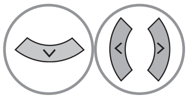
Select **Clock**.

3



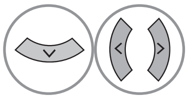
Select **Auto**.

4



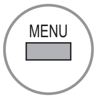
Select your viewing area time zone.
: **Eastern**, **Central**, **Mountain**, **Pacific**, **Alaska**, or **Hawaii**.

5



Select **Auto**, **Off**, or **On**
(depending on whether or not your viewing area observes Daylight Saving time).

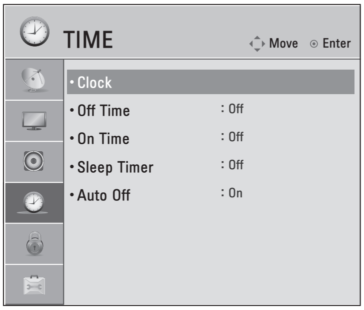
6



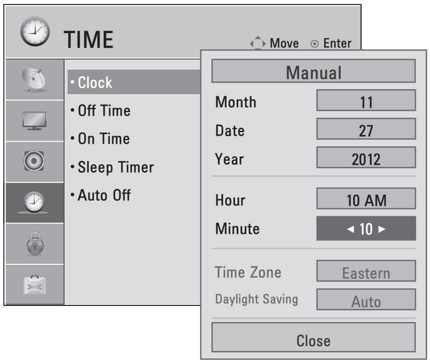
Return to TV viewing.

Manual Clock Setup

If the current time setting is wrong, set the clock manually.


TIME
Move
Enter

- Clock
- Off Time : Off
- On Time : Off
- Sleep Timer : Off
- Auto Off : On


TIME
Move
Enter
Clock
Off Time
On Time
Sleep Timer
Auto Off
Close

Manual

Month 11
Date 27
Year 2012
Hour 10 AM
Minute ◄ 10 ►
Time Zone Eastern
Daylight Saving Auto

1 Select **TIME**.

2 Select **Clock**.

3 Select **Manual**.

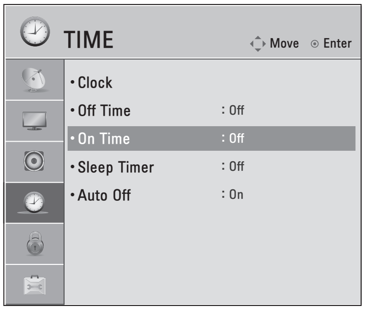
4 Select the **Year**, **Month**, **Date**, **Hour**, or **Minutes** option.

5 Set the **Year**, **Month**, **Date**, **Hour**, or **Minutes** option.

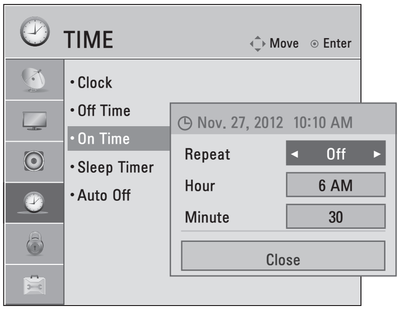
6 Return to TV viewing.

AUTO ON/OFF TIME SETTING

This function operates only if the current time has been set.
The **Off Time** function overrides the **On Time** function if they are both set to the same time.
The TV must be in standby mode for the **On Time** to work.


TIME

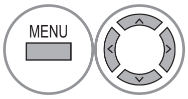
- Clock
- Off Time : Off
- On Time : Off
- Sleep Timer : Off
- Auto Off : On


TIME

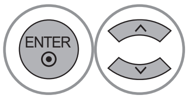
- Clock
- Off Time
- On Time
- Sleep Timer
- Auto Off

Nov. 27, 2012 10:10 AM

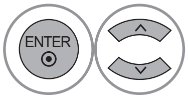
Repeat: Off
Hour: 6 AM
Minute: 30

1


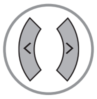
Select **TIME**.

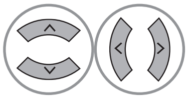
2


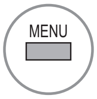
Select **Off Time** or **On Time**.

3


Select **Repeat**.

4

Select **Off**, **Once**, **Daily**, **Mon.~Fri.**, **Mon.~Sat.**, **Sat.~Sun.**, or **Sun.**.

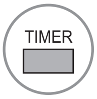
5

Select and set **Hour** or **Minute**.

6


Return to TV viewing.

SLEEP TIMER SETTING

The Sleep Timer turns the TV off at the preset time.
Note that this setting is cleared when the TV is turned off.

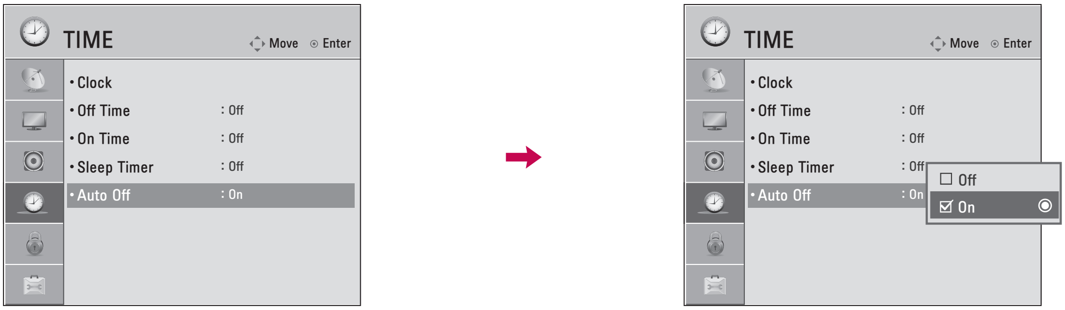
1


Press the **TIMER** button repeatedly to select the number of minutes.
Sleep timer options: **Off**, **10**, **20**, **30**, **60**, **90**, **120**, **180**, and **240** minutes.

- You can also adjust **Sleep Timer** in the **TIME** menu.

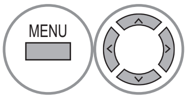
AUTO SHUT-OFF SETTING

If set to on and there is no input signal, the TV turns off automatically after 15 minutes.

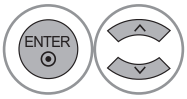

TIME Move Enter
- Clock
- Off Time : Off
- On Time : Off
- Sleep Timer : Off
- Auto Off : On

TIME Move Enter
- Clock
- Off Time : Off
- On Time : Off
- Sleep Timer : Off
- Auto Off : On

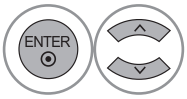
☐ Off
☑ On

1


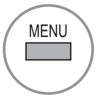
Select **TIME**.

2


Select **Auto Off**.

3


Select **On** or **Off**.

4


Return to TV viewing.

PARENTAL CONTROL / RATINGS

Parental Control can be used to block specific channels, ratings and other viewing sources.

The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station. The default setting is to allow all programs to be viewed. Viewing can be blocked by choosing the type of the program and the categories. It is also possible to block all program viewing for a time period. To use this function, the following must be done :

1. Set ratings and categories to be blocked.
2. Specify a password
3. Enable the lock

V-Chip rating and categories

Rating guidelines are provided by broadcasting stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

Ratings for Television programs including made-for-TV movies :

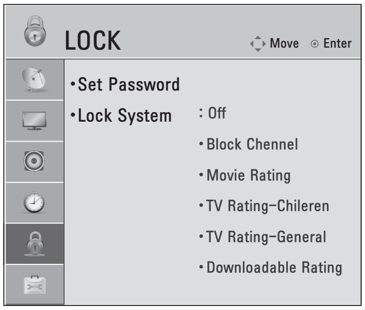
- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)
- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

SET PASSWORD & LOCK SYSTEM

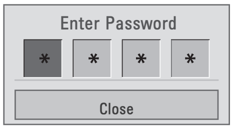
Setting up Your Password

Set up blocking schemes to block specific channels, ratings, and external viewing sources.

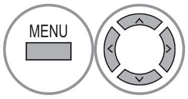
A password is required to gain access to this menu.


LOCK
Move
Enter
• Set Password
• Lock System
: Off
• Block Chennel
• Movie Rating
• TV Rating-Chileren
• TV Rating-General
• Downloadable Rating

→

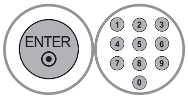

Enter Password
*
*
*
*
Close

1



Select **LOCK.**

2

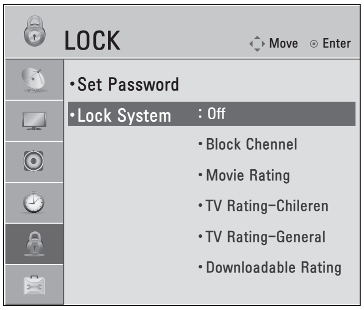

ENTER
1
2
3
4
5
6
7
8
9
0

Input the password.

- Enter the password as requested.
- The TV is set up with the initial password “0-0-0-0”.

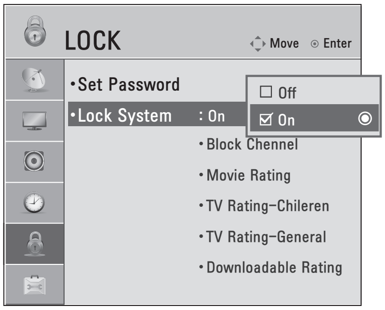
Lock System

Enables or disables the blocking scheme you set up previously.



LOCK
Move Enter

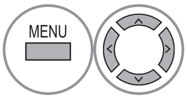
- Set Password
- Lock System : Off
- Block Chennel
- Movie Rating
- TV Rating-Chileren
- TV Rating-General
- Downloadable Rating



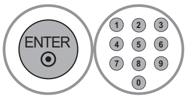
LOCK
Move Enter

- Set Password
- Lock System : On
- Block Chennel
- Movie Rating
- TV Rating-Chileren
- TV Rating-General
- Downloadable Rating

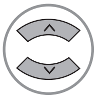
☐ Off
☑ On

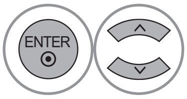
1


Select **LOCK**.

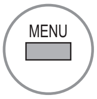
2


Input the password.

3

Select **Lock System**.

4


Select **On** or **Off**.

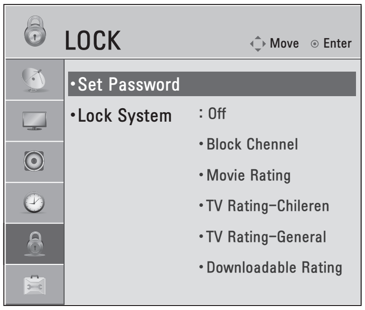
5


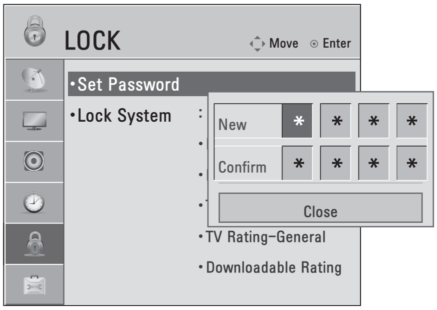
Return to TV viewing.

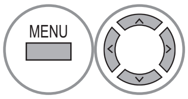
- When you select **On**, the Lock System is enable.

Set Password

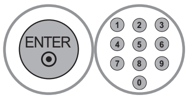
Change the password by inputting a new password twice.


LOCK
Move
Enter
•Set Password
•Lock System
: Off
•Block Chennel
•Movie Rating
•TV Rating-Chileren
•TV Rating-General
•Downloadable Rating

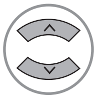

LOCK
Move
Enter
•Set Password
•Lock System
New
Confirm
Close
•TV Rating-General
•Downloadable Rating

1


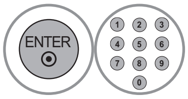
Select **LOCK**.

2

ENTER
1 2 3
4 5 6
7 8 9
0

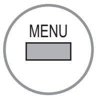
Input the password.

3


Select **Set Password**.

4

ENTER
1 2 3
4 5 6
7 8 9
0

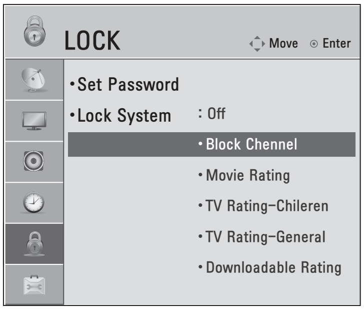
Choose any 4 digits for your **new** password.
As soon as the 4 digits are entered, re-enter the same 4 digits on the **Confirm**.

5


Return to TV viewing.

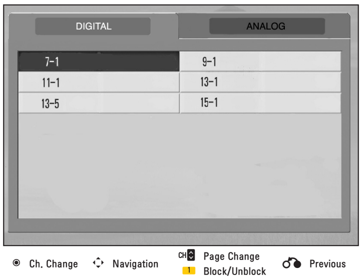
CHANNEL BLOCKING

Blocks any channels that you do not want to watch or that you do not want your children to watch.



LOCK
Move Enter

- Set Password
- Lock System : Off
  - Block Chennel
  - Movie Rating
  - TV Rating-Chileren
  - TV Rating-General
  - Downloadable Rating



DIGITAL	ANALOG
7-1	9-1
11-1	13-1
13-5	15-1

Ch. Change Navigation Page Change Block/Unblock Previous

1 Select **LOCK**.

2 Input the password.

3 Select **Block Channel**.

4 Select a channel to block or unblock.

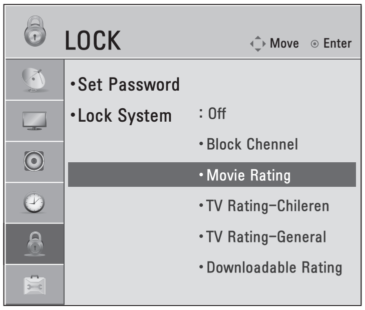
5 Block or unblock a channel.

6 Return to TV viewing.

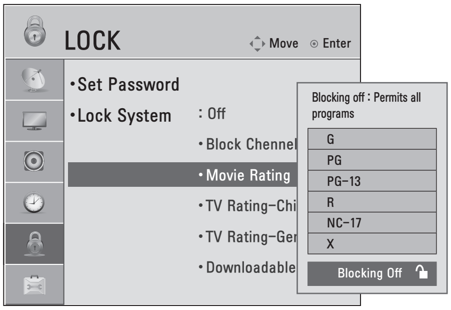
MOVIE & TV RATING

Movie Rating (MPAA)

Blocks movies according to the movie ratings limits specified, so children cannot view certain movies. You can set the ratings limit by blocking out all the movies with the ratings above a specified level. Keep in mind that the movie ratings limit only applies to movies shown on TV, not TV programs, such as soap operas.



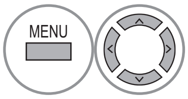
LOCK
Move Enter
• Set Password
• Lock System : Off
• Block Chennel
• Movie Rating
• TV Rating-Chileren
• TV Rating-General
• Downloadable Rating



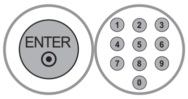
LOCK
Move Enter
• Set Password
• Lock System : Off
• Block Chennel
• Movie Rating
• TV Rating-Chi
• TV Rating-Ger
• Downloadable

Blocking off : Permits all programs
G
PG
PG-13
R
NC-17
X
Blocking Off

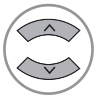
---

1 

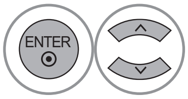
Select **LOCK**.

2 

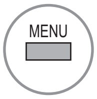
Input the password.

3 

Select **Movie Rating**.

4 

Select **G**, **PG**, **PG-13**, **R**, **NC-17**, **X**, or **Blocking Off**.

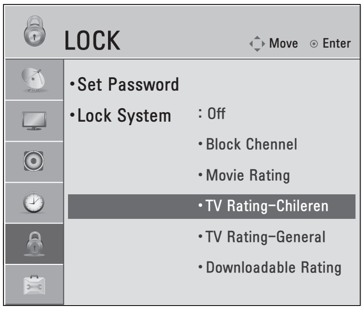
5 

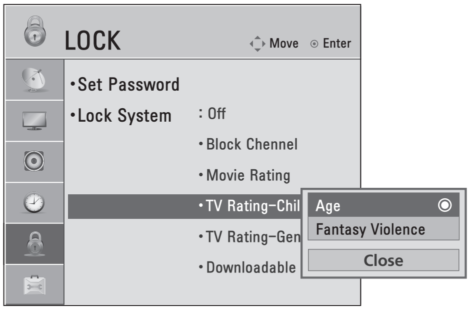
Return to TV viewing.

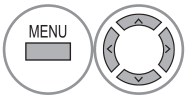
- **G** (General audience)
- **PG** (Parental guidance suggested)
- **PG-13** (Parents strongly cautioned)
- **R** (Restricted)
- **NC-17** (No one 17 and under admitted)
- **X** (Adult only)
- **Blocking Off** (Permits all programs)
- If you set PG-13: G and PG movies will be available, PG-13, R, NC-17 and X will be blocked.

TV Rating Children

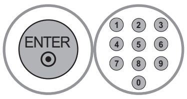
Prevents children from watching certain children's TV programs, according to the ratings limit set. The children rating does not apply to other TV programs. Unless you block certain TV programs intended for mature audiences in the TV Rating - sub menu, your children can view those programs.

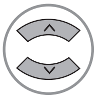

LOCK
Move
Enter
•Set Password
•Lock System
: Off
•Block Chennel
•Movie Rating
•TV Rating-Chileren
•TV Rating-General
•Downloadable Rating

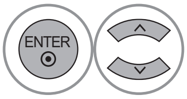

LOCK
Move
Enter
•Set Password
•Lock System
: Off
•Block Chennel
•Movie Rating
•TV Rating-Chil
•TV Rating-Gen
•Downloadable
Age
Fantasy Violence
Close

1


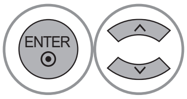
Select **LOCK**.

2

ENTER
1 2 3
4 5 6
7 8 9
0
Input the password.

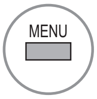
3

Select **TV Rating-Children**.

4


Select **Age** or **Fantasy Violence**.

5


Select block options.

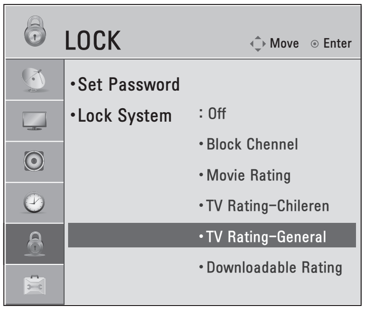
6


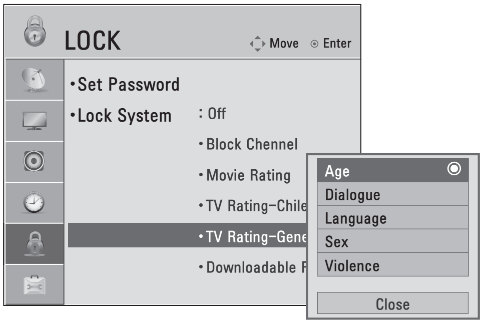
Return to TV viewing.

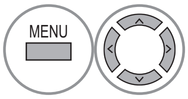
- **Age** (applies to TV-Y, TV-Y7)
- **Fantasy Violence** (applies to TV-Y7)

TV Rating General

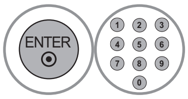
Based on the ratings, blocks certain TV programs that you and your family do not want to view.

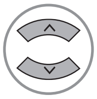

LOCK
Move
Enter
•Set Password
•Lock System
: Off
•Block Chennel
•Movie Rating
•TV Rating-Chileren
•TV Rating-General
•Downloadable Rating

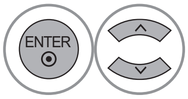

LOCK
Move
Enter
•Set Password
•Lock System
: Off
•Block Chennel
•Movie Rating
•TV Rating-Chile
•TV Rating-Gene
•Downloadable R
Age
Dialogue
Language
Sex
Violence
Close

1


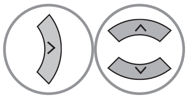
Select **LOCK**.

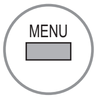
2

ENTER
1
2
3
4
5
6
7
8
9
0
Input the password.

3

Select **TV Rating-General**.

4


Select **Age**, **Dialogue**, **Language**, **Sex** or **Violence**.

5

Select block options.

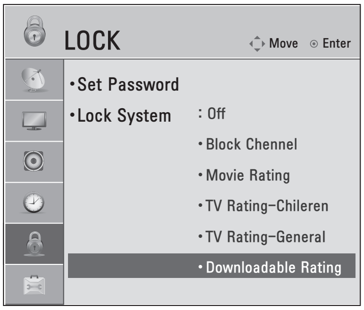
6


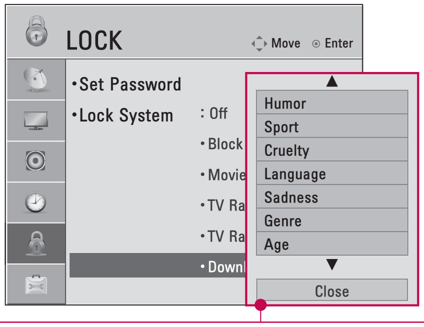
Return to TV viewing.

- **Age**
  (applies to TV-G,TV-PG,TV-14,TV-MA).
- **Dialogue** - sexual dialogue
  (applies to TV-PG,TV-14).
- **Language** - adult language
  (applies to TV-PG, TV-14, TV-MA).
- **Sex** - sexual situations
  (applies to TV-PG, TV-14, TV-MA).
- **Violence**
  (applies to TV-PG, TV-14, TV-MA).

DOWNLOADABLE RATING

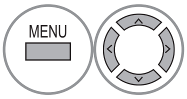
This function operates only when TV has received Region5 Rating data.


LOCK
Move
Enter
• Set Password
• Lock System
: Off
• Block Chennel
• Movie Rating
• TV Rating-Chileren
• TV Rating-General
• Downloadable Rating

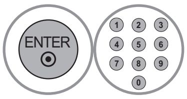

LOCK
Move
Enter
• Set Password
• Lock System
: Off
• Block
• Movie
• TV Ra
• TV Ra
• Downl
Humor
Sport
Cruelty
Language
Sadness
Genre
Age
Close

- Based on rating table, your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.

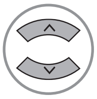
- If a Downloadable rating is locked, enter the password to unlock it temporarily.

1 

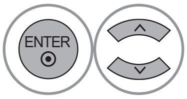
Select **LOCK**.

2 
ENTER
1
2
3
4
5
6
7
8
9
0

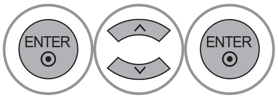
Input the password.

3 

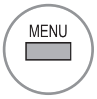
Select **Downloadable Rating**.

4 

Select desired Downloadable Rating option.

5 
ENTER
ENTER

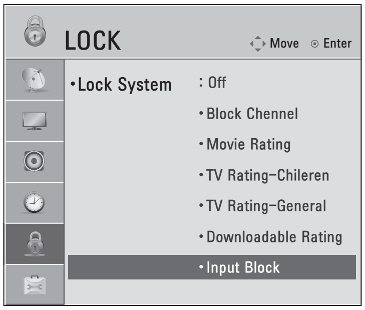
Select desired option and block it.

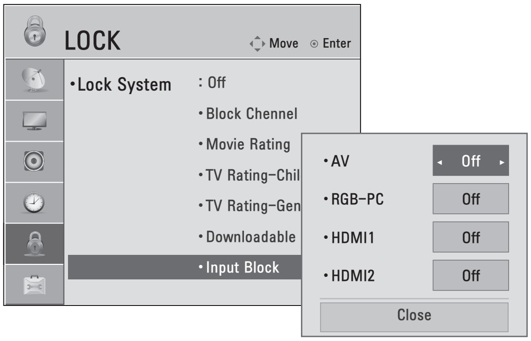
6 

Return to TV viewing.

EXTERNAL INPUT BLOCKING

Enables you to block an input.


LOCK
Move
Enter
• Lock System
: Off
• Block Chennel
• Movie Rating
• TV Rating-Chileren
• TV Rating-General
• Downloadable Rating
• Input Block


LOCK
Move
Enter
• Lock System
: Off
• Block Chennel
• Movie Rating
• TV Rating-Chil
• TV Rating-Gen
• Downloadable
• Input Block
• AV
Off
• RGB-PC
Off
• HDMI1
Off
• HDMI2
Off
Close

1 Select **LOCK**.

2 Input the password.

3 Select **Input Block**.

4 Select input source.

5 Select **On** or **Off**.

6 Return to TV viewing.

USB

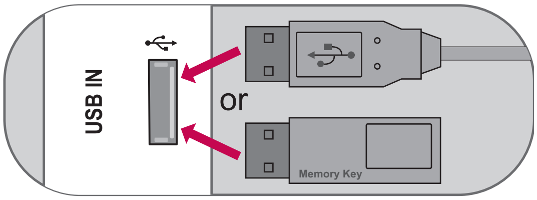
- Image shown may differ from your TV.

ENTRY MODES

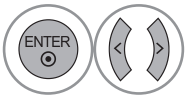
When you connect a USB device, this pop-up menu is displayed automatically.
When the Pop-Up menu does not appear, you can select My Media on Home Menu.
On a USB device, you can not add a new folder or delete an existing folder.

---

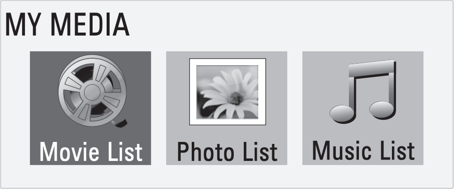
1 Connect the USB device to the **USB IN** jack on the side of TV.

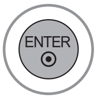

USB IN
or
Memory Key

- This TV can view JPG image files, HD DivX files or play MP3 audio files.

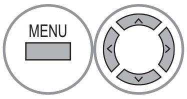
2 

Select **Movie List**, **Photo List** or **Music List**.

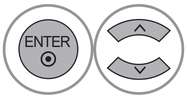

MY MEDIA
Movie List
Photo List
Music List

3 

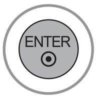
TV Rating General

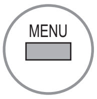
1 

Select **OPTION**.

2 

Select **Exit**.

3 

4 

Return to TV viewing.

Precautions with USB devices.

- Only a USB storage device is recognizable.
- If the USB storage device is connected through a USB hub, the device is not recognizable.
- A USB storage device using an automatic recognition program may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- The recognition speed of a USB storage device may depend on each device.
- In case of a card reader, up to four memory cards are concurrently recognizable.
- Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Only use a USB storage device which has normal music, image or movie files.
- Please connect power to a USB storage device (over 0.4A) which requires an external power supply. If not, the device may not be recognized.
- Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, the device may not be recognized.
- Some USB storage devices may not be supported or operate properly.
- File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.
- Please backup important files because data on the USB device may be damaged. Data management is the consumer's responsibility and as a result, the manufacturer does not cover data damage.
- Please use only a USB storage device which was formatted as a FAT32, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- Data in a USB storage device cannot be deleted in the NTFS file system.
- If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- The recommended capacity is 1TB or less for a USB external hard disk and 32GB or less for USB memory.
- Any device with more than the recommended capacity may not work properly.
- When using a USB HDD via the USB extension cable, connect a support electric power source.

MOVIE LIST

The movie list is activated once a USB drive is detected. It is used when playing movie files on the TV.
It displays all of the video files it recognizes.
The On-Screen Display on your model may be slightly different.

Supported movie file

- Resolution: under 1920 pixel (width) x 1080 pixel (height)
- Frame Rate: under 30 frame/sec (1920x1080), under 60 frame/sec (1280x720)
- Max bitrate of playable video file: 20 Mbps (Mega bit per second)
- Bit rate : within 32 kbps to 320 kbps (MP3)
- Supported external subtitle format: *.smi/*.srt/*.sub (MicroDVD,Subviewer1.0/2.0)/*.ass/*.ssa/*.txt (TMPlayer)/*.psb (PowerDivX)
- Supported Internal subtitle format: only, XSUB (It is the subtitle format used in DivX6 files)

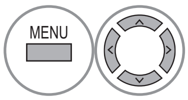
Precautions when playing the video files

- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Time information in an external subtitle file should be arranged in ascending order to be played.
- The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- A damaged video file may not be played correctly, or some functions may not be usable.
- Video files produced with some encoders may not be played correctly.
- If the video and audio structure of recorded file is not interleaved, the file not playback properly.
- Video with resolution higher than maximum resolution supported for each frame, cannot be guaranteed for smooth playback.
- Video files other than the specified types and formats may not work properly.
- The movie file encoded by the GMC (Global Motion Compensation) is not supported.
- Only 250 Korean characters, 500 letters and 500 numbers are supported for each line of the subtitle.
- Only 10000 sync blocks are supported within the subtitle file.
- We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264/AVC.
- DTS Audio codec is not supported.
- A video file more than 30GB in file size is not supported for playback. The file size limit is dependent on the encoding environment.
- Playing a video via a USB connection that doesn't support high speed may not work properly.
- USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- The video file and its subtitle file must be located in the same folder.
  At this time, a video file name and its subtitle file name must be identical for it to be displayed.
- When you are watching a movie via the Movie List function, you can adjust the picture with the ENERGY SAVING and AV MODE button on the remote control. User setup for each picture mode is not supported.

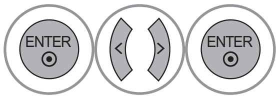
Supported Video Formats

File Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg	MPEG1, MPEG2	MP2, MP3, Dolby Digital, LPCM	1920 x 1080 @ 30p (Only Motion JPEG 640x480@30p)
dat	MPEG1	MP2	
ts, trp, tp	MPEG2, H.264, AVS, VC1	MP2, MP3, Dolby Digital, AAC, HE-AAC	
vob	MPEG1, 2	MP2, MP3, Dolby Digital, LPCM	
mp4, mov	MPEG4,DivX 3.11, DivX 4.12, DivX 5.x, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2H.264	AAC, HE-AAC, MP3	
mkv	H.264, MPEG-1,2,4	MP2, MP3, Dolby Digital, AAC HE-AAC, LPCM	
divx, avi	MPEG2, MPEG4, DivX 3.11, DivX 4, DivX 5, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2H.264	MP2, MP3, Dolby Digital, LPCM, ADPCM, AAC, HE-AAC	
Motion JPEG (avi, mp4, mkv)	JPEG	LPCM, ADPCM	
asf, wmv	VC1	WMA	
flv	Sorenson H.263, H264	MP3, AAC	

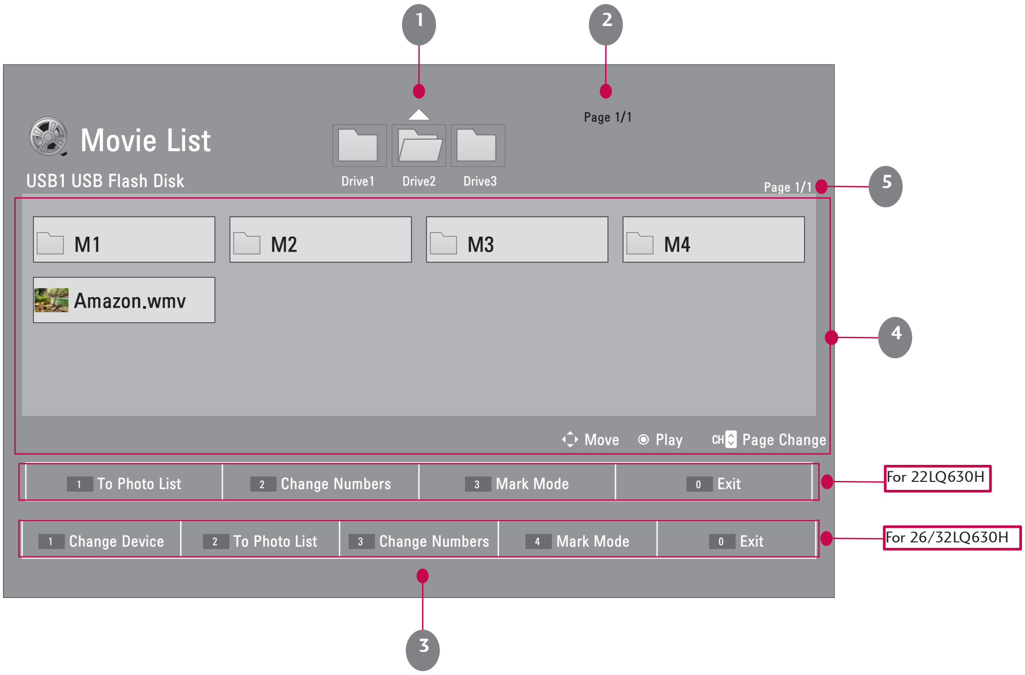
Screen Components

1


Select **MY MEDIA**.

2

ENTER
ENTER

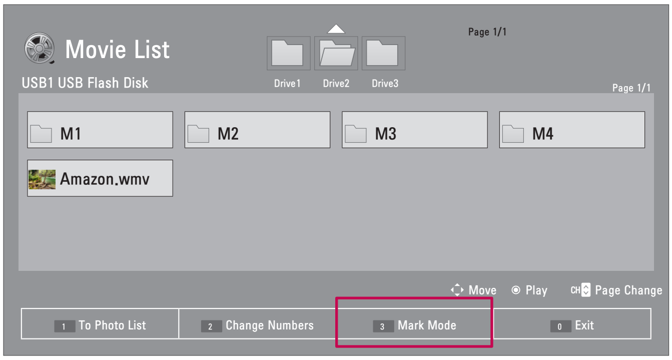
Select **Movie List**.


①
②
Movie List
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
⑤
M1
M2
M3
M4
Amazon.wmv
④
Move
Play
CH Page Change
1 To Photo List
2 Change Numbers
3 Mark Mode
0 Exit
For 22LQ630H
1 Change Device
2 To Photo List
3 Change Numbers
4 Mark Mode
0 Exit
For 26/32LQ630H
③

① Moves to upper level folder
② Current page/Total pages
③ Corresponding buttons on the remote control
④ Contents under the folder focused on ①
⑤ Current page/total pages of contents

Change Device	Select USB device
To Photo List	Move to **Photo List**.
Change Numbers	Changes the number or thumbnails displayed at a time.
Mark Mode	Allows you to mark certain files.
Exit	Return to the previous menu.

Movie Selection

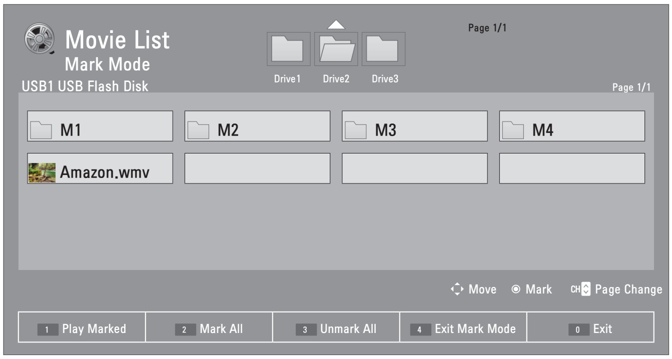

Movie List
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
M1
M2
M3
M4
Amazon.wmv
Move
Play
CH Page Change
1 To Photo List
2 Change Numbers
3 Mark Mode
0 Exit

1 Select the target folder or drive.

2 ENTER Select the desired movie title.

3 ENTER Play the movie file.

Mark Mode


Movie List
Mark Mode
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
M1
M2
M3
M4
Amazon.wmv
Move
Mark
CH Page Change
1 Play Marked
2 Mark All
3 Unmark All
4 Exit Mark Mode
0 Exit

1 Select the target folder or drive.

2 ENTER Select the desired movie title.

3 ENTER Mark your desired movie file.

4 1 Play the marked movie file.

1	Play the first selected file. Once a movie finishes playing, the next selected one will be played automatically.
2	Mark all files in the folder.
3	Deselect all marked files.
4	Exit the Mark Mode.
0	Return to the previous menu.

PHOTO LIST

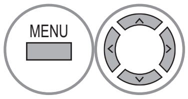
This TV only supports picture in JPEG(.jpg) format.
The On-Screen Display on your model may be slightly different.

Supported photo file: *.JPG

- You can view JPG files only.
- Only baseline scan is supported among JPG.
- Supported JPG size: 64 pixel (width) x 64 pixel (height) to 15360 pixel (width) x 8640 pixel (height)

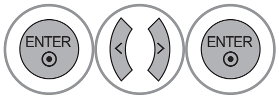
Screen Components

1

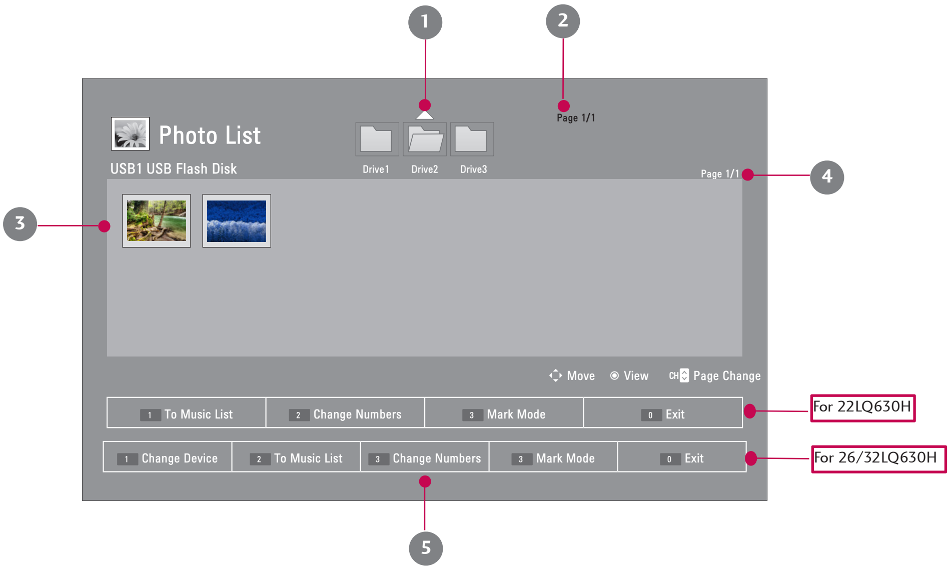


Select **MY MEDIA**.

2


ENTER
ENTER

Select **Photo List**.


1
2
Page 1/1
Photo List
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
4
3
Move
View
CH Page Change
1 To Music List
2 Change Numbers
3 Mark Mode
0 Exit
For 22LQ630H
1 Change Device
2 To Music List
3 Change Numbers
3 Mark Mode
0 Exit
For 26/32LQ630H
5

① Moves to upper level folder
② Current page/Total pages
③ Preview: Displays the thumbnail/folder name of the photo in the selected folder
④ Current page/total pages of contents
⑤ Corresponding buttons on the remote control

Photo Selection and Mark Mode

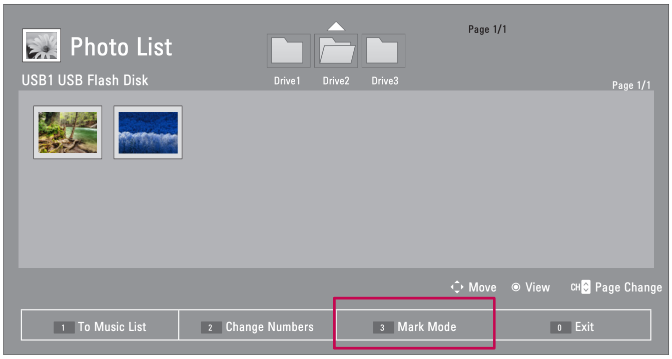


Photo List
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
Move
View
CH Page Change
1 To Music List
2 Change Numbers
3 Mark Mode
0 Exit

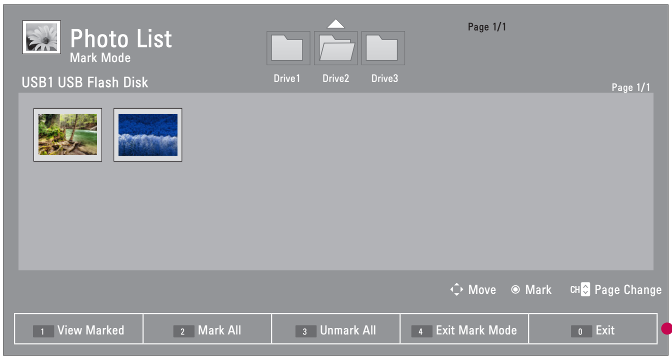
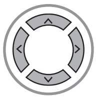


Photo List
Mark Mode
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
Move
Mark
CH Page Change
1 View Marked
2 Mark All
3 Unmark All
4 Exit Mark Mode
0 Exit

When you select the Mark Mode,
this window is displayed.

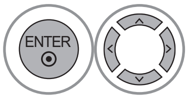
- ▶ **View Marked**: Display the selected item.
- ▶ **Mark All**: Mark all photos on the screen.
- ▶ **Unmark All**: Deselect all marked photos.
- ▶ **Exit Mark Mode**: Exit the Mark Mode.
- ▶ **Exit**: Exit the photo list.

1



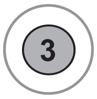
Select the target folder or drive.

2



Select the desired photos.

3



Access to the Mark Mode.

- When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the folder in a slide show.

Full Screen Menu

You can change the Photo List view so that it fills the screen. More operations are available in full screen mode.

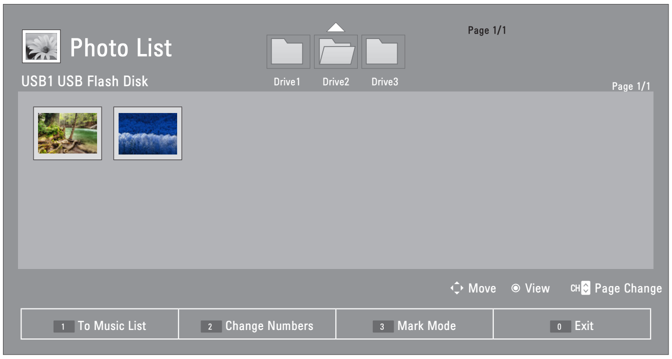


Photo List
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
Move
View
Page Change
1 To Music List
2 Change Numbers
3 Mark Mode
0 Exit

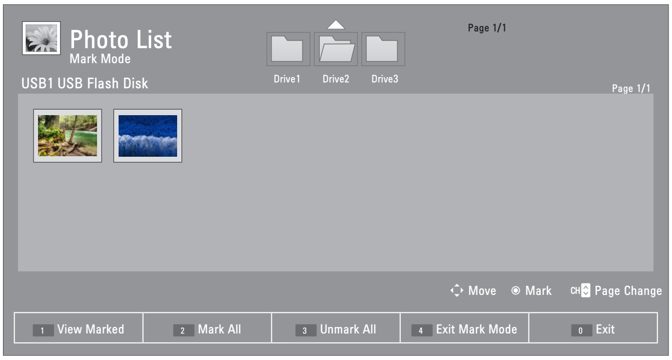
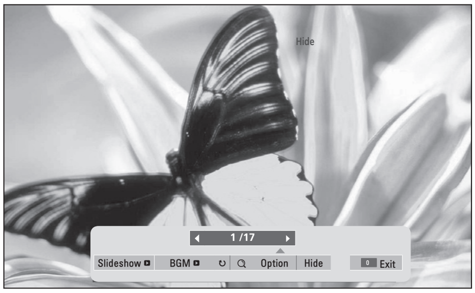


Photo List
Mark Mode
USB1 USB Flash Disk
Drive1
Drive2
Drive3
Page 1/1
Page 1/1
Move
Mark
Page Change
1 View Marked
2 Mark All
3 Unmark All
4 Exit Mark Mode
0 Exit


Hide
1 /17
Slideshow
BGM
Option
Hide
0 Exit

The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.
Press the **RETURN** button to move to the previous menu screen.

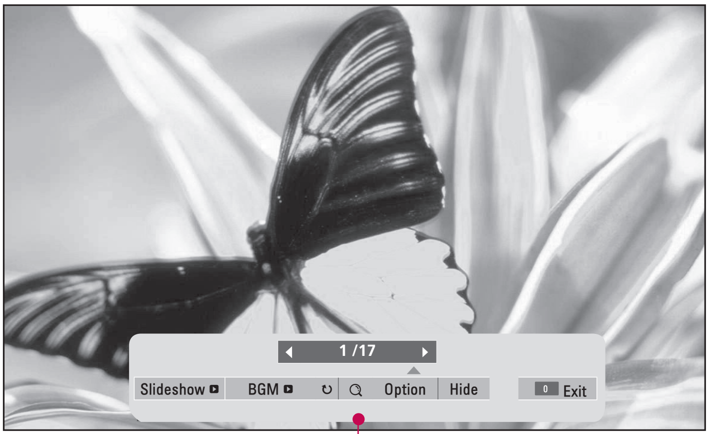
---

1 Select the target folder or drive.

2 Select the desired photos.

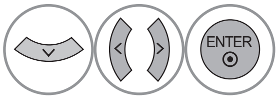
3 Select **View**. Then the selected photo is displayed in full size.

- Use the **CH**∧∨ button to navigate in the photo page.



- **Slideshow**: Selected photos are displayed during the slide show. If no photo is selected, all photos in the current folder are displayed during slide show.
- **BGM**: Listen to music while viewing photos in full size.
- ↻**(Rotate)**: Rotate photos.
- 🔍**(Zoom)**: Zoom in the picture.
- **Option**: Set the **Slide Speed** and **BGM**.
- **Hide**: Hide the menu on the full-sized screen.
- **Exit**: Return to the previous menu

1



Select the **Slideshow**, **BGM**, ↻**(Rotate)**, **Option**, or **Hide.**

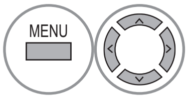
- Use < > button to select the previous or next photo.
- Use ∧∨< > button to select and control the menu on the full-sized screen.

MUSIC LIST

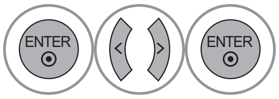
You can use the Music List menu to play MP3 files from a USB storage device.
This TV cannot play back copy-protected files.
The On-Screen Display on your model may be slightly different.

Supported music file: *.MP3
Bit rate range 32 Kbps - 320 Kbps
- Sampling rate (Sampling Frequency)
  MPEG1 layer 3: 32 kHz, 44.1 kHz, 48 kHz
  MPEG2 layer 3: 16 kHz, 22.05 kHz, 24 kHz
  MPEG2.5 layer 3: 8 kHz, 11.025 kHz, 12 kHz

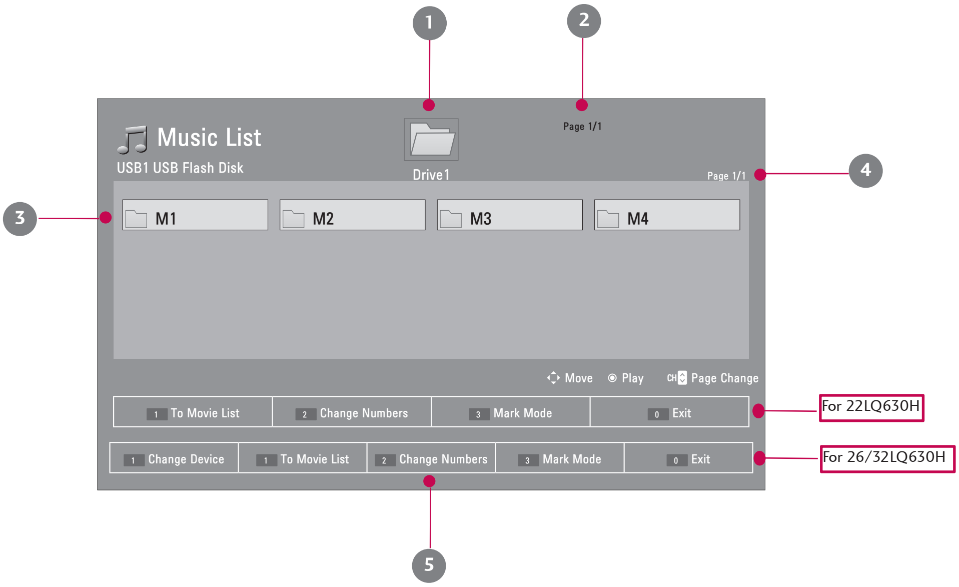
Screen Components

1


Select **MY MEDIA**.

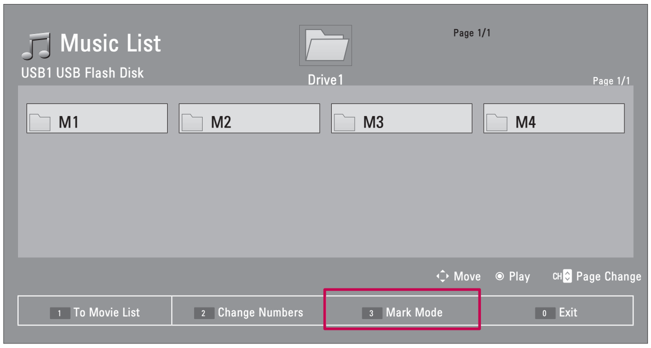
2

ENTER
ENTER

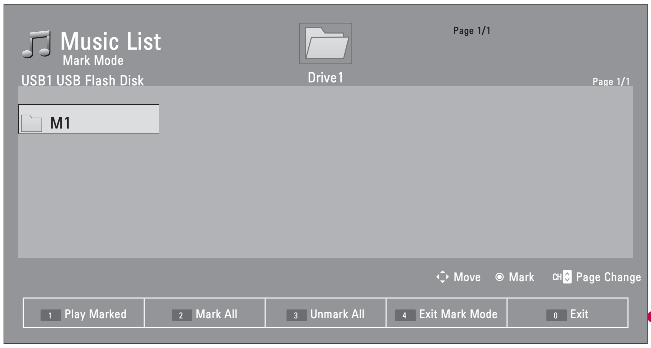
Select **Music List**.


1
2
3
4
5
Music List
USB1 USB Flash Disk
Drive1
Page 1/1
Page 1/1
M1
M2
M3
M4
Move
Play
CH Page Change
1 To Movie List
2 Change Numbers
3 Mark Mode
0 Exit
1 Change Device
1 To Movie List
2 Change Numbers
3 Mark Mode
0 Exit
For 22LQ630H
For 26/32LQ630H

① Moves to upper level folder
② Current page/Total pages
③ Preview: If a supported picture of the album jacket is in the file, it will be displayed here.
④ Current page/total pages of contents
⑤ Corresponding buttons on the remote control

Music Selection and Pop-up Menu


Music List
USB1 USB Flash Disk
Drive1
Page 1/1
Page 1/1
M1
M2
M3
M4
Move
Play
CH Page Change
1 To Movie List
2 Change Numbers
3 Mark Mode
0 Exit


Music List
Mark Mode
USB1 USB Flash Disk
Drive1
Page 1/1
Page 1/1
M1
Move
Mark
CH Page Change
1 Play Marked
2 Mark All
3 Unmark All
4 Exit Mark Mode
0 Exit

- ▶ **Play** (During stop): Play the selected file. Once a song finishes playing, the next selected one will be played. When there are no selected files to play, the next one in the current folder will be played. If you go to a different folder and press the **ENTER** button, the current song in playback will stop.
- ▶ **Play Marked**: Play the selected files. Once a file finishes playing, the next selected one will be played automatically.
- ▶ **Mark All**: Mark all files in the folder.
- ▶ **Unmark All**: Deselect all marked files.
- ▶ **Exit Mark Mode**: Exit the Mark Mode.
- ▶ **Exit**: Exit the Music List

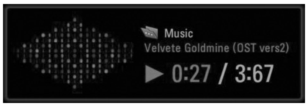
1 Select the target folder or drive.

2 ENTER Select the desired musics.

3 Access to the Mark Mode.

- ■ Use the **CH**∧ ∨ button to navigate in the music page.
- ■ If no music is marked, all the music in the folder will be played in sequence. When one or more music files are marked, the marked music files will be played in sequence. If you want to listen to only one song repeatedly, just mark that one file and play.

- The play information box (as shown below) will automatically move across the screen when there is no user input to prevent a fixed image remaining on the screen for a extended period of time.



NOTE

- ▶ When music is playing, ♪ is displayed in front of the music play time.
- ▶ A damaged or corrupted music file that does not play displays 00:00 as the play time.
- ▶ Files downloaded from a paid service with copyright protection are not supported and will not play.
- ▶ Press **ENTER**, ■, or **RETURN** button to stop the screen saver.

TROUBLESHOOTING

The operation does not work normally.	
The remote control doesn't work	■ Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ Ensure that the correct remote operating mode is set: TV, VCR etc. ■ Install new batteries. *This feature is not available for all models.
Power is suddenly turned off	■ Is the sleep timer set? ■ Check the power control settings. Power interrupted.

The video does not work.	
No picture &No sound	■ Check whether the product is turned on. ■ Try another channel. The problem may be with the broadcast. ■ Is the power cord inserted into wall power outlet? ■ Check your antenna direction and/or location. ■ Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	■ This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor color or poor picture	■ Adjust Color in menu option. ■ Keep a sufficient distance between the product and the VCR. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	■ Station or cable product experiencing problems, tune to another station. ■ Station signal is weak, reorient antenna to receive weaker station. ■ Check for sources of possible interference.
Lines or streaks in pictures	■ Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	■ If an HDMI cable doesn't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI.

The audio does not work.	
Picture OK but No sound	■ Press the VOL or VOLUME button. ■ Sound muted? Press the MUTE button. ■ Try another channel. The problem may be with the broadcast. ■ Are the audio cables installed properly?
No output from one of the speakers	■ Adjust Balance in menu option.
Unusual sound from inside the product	■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.
No sound when connecting HDMI/USB	■ Check High Speed HDMI cable. ■ Check USB cable over version 2.0. ■ Use normal MP3 file. *This feature is not available for all models.

There is a problem in PC mode. (Only PC mode applied)	
The signal is out of range	■ Adjust resolution, horizontal frequency, or vertical frequency. ■ Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	■ Work the Auto configure or adjust clock, phase, or H/V position. (Option)
Screen color is unstable or single color	■ Check the signal cable. ■ Reinstall the PC video card.

MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you can enjoy your new TV.

Caution: Be sure to turn the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

1. Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.
2. Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

⚠ **WARNING**

▶ Do not use window/glass cleaner or anything with ammonia to clean the screen.

Cleaning the Cabinet

- To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.
- Please be sure not to use a wet cloth.

Extended Absence

⚠ **CAUTION**

▶ If you expect to leave your TV dormant for a long time (such as a vacation), it's a good idea to unplug the power cord to protect against possible damage from lightning or power surges.

PRODUCT SPECIFICATIONS

MODELS	**22LQ630H (22LQ630H-UA)**	**26LQ630H (26LQ630H-UA)**
Dimensions (Width x Height x Depth)	526.0 x 352.0 x 54.1 mm 20.7 x 13.8 x 2.1 inch	659.0 x 427.8 x 59.0 mm 25.9 x 16.8 x 2.3 inch
Weight	3.62 kg / 7.9 lbs	5.55 kg / 13.6 lbs
Current Value / Power Consumption	0.7 A / 45 W	0.6 A / 60 W

MODELS	**32LQ630H (32LQ630H-UA)**
Dimensions (Width x Height x Depth)	787.4 x 501.5 x 61.5 mm 31.0 x 19.7 x 2.4 inch
Weight	9.05 kg / 19.9 lbs
Current Value / Power Consumption	0.7 A / 70 W

MODELS	**42CQ610H (42CQ610H-UA)**
Dimensions (Width x Height x Depth)	1024 x 621 x 87.1 mm 40.3 x 24.4 x 3.4 inch
Weight	15.1 kg / 33.2 lbs
Current Value / Power Consumption	1.5 A / 150 W

Power requirement		AC120V ~ 50/60Hz
Television System		NTSC-M, VSB, 64 & 256 QAM
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	0 ~ 40°C (32 ~ 104°F)
	Operating Humidity	Less than 80%
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Storage Humidity	Less than 85%

- The specifications shown above may be changed without prior notice for quality improvement.

OPEN SOURCE LICENSE

Product Type	Commercial TV
Model Number/Range	LQ630H-UA CQ610H-UA

Those products identified by the Product Type and Model Range above from LG Electronics, Inc. (“LGE”) contain the open source software detailed below. Please refer to the indicated open source licences (as are included following this notice) for the terms and conditions of their use.

Component(s)	Licence
Linux kernel, busybox, e2fsprogs, gdbserver, jfsutils, mtd-utils, procps, u-boot, udhcpc	GPL v2.0
DirectFB, gconv, glibc	LGPL v2.1
Nano-x	MPL v1.1

The source code for the above may be obtained free of charge from LGE at http://opensource.lge.com. LGE will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

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Component(s)	Licence
Apache Jakarta Commons Net, Apache ORO	Apache license 1.1
ReportGUI	Apache license 2.0
strace	BSD license
freetype	Freetype license
libjpeg	JPEG license
Libcurl, ncurses	MIT license
The Legion of the Bouncy Castle	MIT/X11 style license
OpenSSL	OpenSSL license
Basic compression lib, libpng, tinyxml, zlib	zlib/libpng license

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

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Mark Adler

LG

Life's Good

The model and serial numbers of the TV is located on the back of the TV
Record it below should you ever need service.

MODEL ______________________________

SERIAL ______________________________

Life's Good

22LQ630H 26LQ630H 32LQ630H
42CQ610H

Hospital TVs

Commercial Mode Setup Guide

Note: Selected features shown within this guide may not be available on all models.

EXPERIENCED INSTALLER

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Custom Master TV Setup
pages 15 – 18

Cloning Information
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FTG Mode of Operation
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MODEL and SERIAL NUMBER

The model and serial numbers of this TV are located on the back of the cabinet. For future reference, LG suggests that you record those numbers here:

Model No._________________ Serial No._______________

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING:

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

POWER CORD POLARIZATION:

This product is equipped with a 3-wire grounding-type alternating current power plug. This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the 3-wire grounding-type plug.

NOTE TO CABLE/TV INSTALLER:

This reminder is provided to call the cable TV system installer’s attention to Article 820-40 of the National Electrical Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

REGULATORY INFORMATION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

Do not attempt to modify this product in any way without written authorization from LG Electronics U.S.A., Inc. Unauthorized modification could void the user’s authority to operate this product.

COMPLIANCE:

The responsible party for this product’s compliance is: LG Electronics U.S.A., Inc.
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IMPORTANT SAFETY INSTRUCTIONS

1. **Read these instructions.**
2. **Keep these instructions.**
3. **Heed all warnings.**
4. **Follow all instructions.**
5. **Do not use this apparatus near water.**
6. **Clean only with dry cloth.**
7. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.**
8. **Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.**
10. **Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.**
11. **Only use attachments/accessories specified by the manufacturer.**
12. **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination in order to avoid injury from tip-over.**

PORTABLE CART WARNING

13. **Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.**
14. Never touch this apparatus or antenna during a thunder or lighting storm.
15. When mounting a TV on the wall, make sure not to install the TV by the hanging power and signal cables on the back of the TV.
16. Do not allow an impact shock or any objects to fall into the product, and do not drop objects onto the screen.
17. **Power Cord**
    Caution: It is recommended that appliances be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page in the Owner's Manual to be certain.

    Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as twisting, kinking, or pinching or being closed in a door or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

    Do not use a damaged or loose power cord. Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.
18. **Overloading**
    Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in fire or electric shock.
19. **Outdoor Use/Wet Location**
    Warning: To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids.

    Do not touch the TV with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the TV to direct air conditioning.

    Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc., on or over the apparatus (e.g., on shelves above the unit).
20. **Grounding**
    Ensure that you connect the earth ground wire to prevent possible electric shock (i.e., a TV with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightning rods, or gas pipes.
21. **Disconnect Device**
    The mains plug is the disconnecting device. The plug must remain readily operable.

    As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.

(Continued on next page)

IMPORTANT SAFETY INSTRUCTIONS

(Continued from previous page)

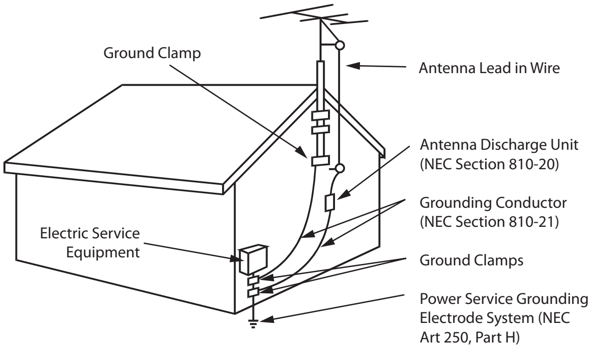
22. Outdoor Antenna Grounding
If an outside antenna or cable system is connected to the product, follow the precautions below.

An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits or where it can come into contact with such power lines or circuits as death or serious injury can occur.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Article 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to NEC, ANSI/NFPA 70


Ground Clamp
Antenna Lead in Wire
Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductor (NEC Section 810-21)
Electric Service Equipment
Ground Clamps
Power Service Grounding Electrode System (NEC Art 250, Part H)

23. Cleaning
When cleaning, unplug the power cord and wipe gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the TV as electric shock may occur. Do not clean with chemicals such as alcohol, thinners or benzene.

24. Transporting Product
Make sure the TV is turned Off and unplugged and that all cables have been removed. It may take two or more people to carry larger TVs. Do not press against or put stress on the front panel of the TV during transport.

25. Ventilation
Install the TV where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the TV with cloth or other materials (e.g., plastic) while it is plugged in. Do not install in excessively dusty places.

26. Do not touch the ventilation openings, as they may become hot while the TV is operating.

27. If you smell smoke or other odors coming from the TV or hear strange sounds, unplug the power cord, and contact an authorized service center.

28. Do not press against the front panel of the TV with your hand or a sharp object (e.g., a nail, pencil, or pen) or make a scratch on it.

29. Keep the product away from direct sunlight.

30. Dot Defect
The LCD panel is a high technology product with resolution of two million to six million pixels. In a very few cases, you could see fine dots on the screen while you are viewing the TV. Those dots are deactivated pixels and do not affect the performance and reliability of the TV.

31. Generated Sound
“Cracking”: A cracking noise that occurs while the TV is On or when it is turned Off is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required.

Electrical circuit humming/panel buzzing: A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending on the product. This generated sound does not affect the performance and reliability of the product.

32. For LCD TV
If the TV feels cold to the touch, there may be a small “flicker” when it is turned On. This is normal; there is nothing wrong with the TV. Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the TV’s performance. Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.

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Notes

- Installer Menu content is intended for use primarily by qualified TV electronics technicians.
- Refer to the Owner's Manual for additional information on TV installation, features, specifications, maintenance, and safety instructions.
- Design and specifications subject to change without prior notice.

Commercial Mode Overview

This document describes how to set up LQ630H and CQ610H TVs for Commercial Mode operation. LG commercial TV functionality is based on "ownership" of the Channel Map; that is, the Channel Map resides in the TV's CPU, Protocol Translator Card (PTC), or embedded *b*-LAN™ (EBL) module, or it resides externally from the TV (i.e., in a device from the solution provider).

Each of these TV models is capable of Free-To-Guest (FTG) Mode operation via the TV CPU. Alternatively, the EBL module can be configured either for Pass-through Mode (default) or FTG Mode. When neither the CPU nor EBL is in FTG Mode, these TV models also allow external control via the TV's MPI port.

Setup Checklist

Note: This document provides information specific to Commercial Mode operation. Refer to the Owner's Manual for detailed information on TV installation and hardware and cable connections.

Installation

__ Unpack TV and all accessories.
__ Install batteries in the Installer Remote.
__ Install TV on VESA mount or stand.
Note: It may be advisable to make all cable connections before installing on VESA mount or stand, as appropriate.

Hardware Connections

__ Install any additional hardware as appropriate to your institution, LAN, etc.

Cable Connections

__ Make all rear jack panel and MPI card slot connections, as appropriate.

Commercial Mode Setup

__ Complete appropriate procedures as described in this document for Commercial Mode operation.

Pass-through Mode

This mode allows you to configure stand-alone TVs and/or create a Master TV Setup for cloning purposes for TVs that are to remain in Pass-through Mode. This mode also allows external control via the GAME CONTROL/MPI port on the TV rear jack panel. There are two methods for configuring stand-alone TVs in Pass-through Mode: either using the Express Script Installer Menu Wizard or the Custom Master TV Setup procedure as described in this document.

Express Script Installer Menu Wizard

The Express Script Installer Menu Wizard guides you through the process of setting up the TVs, limiting the customization of TV features and Installer Menu items to those that are essential to most hospital TV viewing applications. The Express Script Installer Menu Wizard is described in detail on pages 11 to 14.

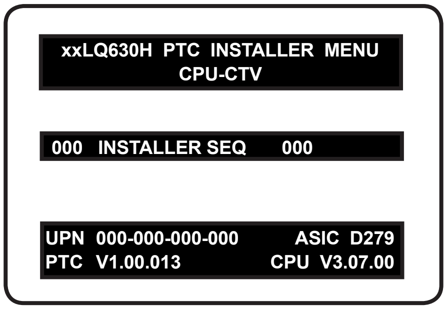
Note: While the Express Script Installer Menu Wizard enables you to set up TVs in lieu of cloning, you can also use an Express Script TV Setup for cloning purposes, if desired. However, note that TV setup menu customization via the Express Script Installer Menu Wizard is limited to Channel Menu options.

Custom Master TV Setup

Unlike the guided process above, the Custom Master TV Setup procedure enables you to create a customized Master TV Setup for cloning purposes. Configure Installer Menu items as required for TV operation and set up TV features (Channel, Picture, Audio, etc.). The Custom Master TV Setup procedure is described in detail on pages 15 to 18.

Commercial Mode Overview (Cont.)

Installer Menu
To create a customized Master TV Setup, you will need to know how to enter the commercial controller (PTC) Installer Menu and make changes to the default values as required. If necessary, familiarize yourself with the Installer Menu and how to make and save changes. Refer to pages 19 to 26 for information on accessing the Installer Menu and for detailed descriptions of the Installer Menu items.



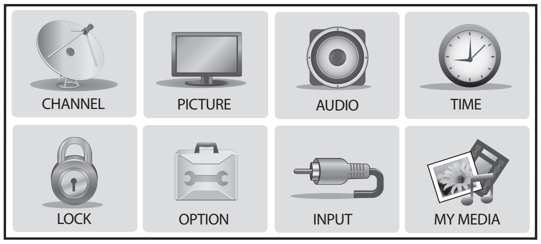
xxLQ630H PTC INSTALLER MENU
CPU-CTV

000 INSTALLER SEQ 000

UPN 000-000-000-000 ASIC D279
PTC V1.00.013 CPU V3.07.00

Typical Installer Menu

TV Setup Menus
On-screen setup menus control the features of the TV. Use the Installer Remote to access the TV setup menus, and set the TV features to the desired configuration for the end user. Refer to the Owner's Manual for detailed information on the TV setup menus.



TV Setup Menus

Cloning
Cloning refers to the process of capturing a Master TV Setup and transferring it to a Target TV (both TVs must be in Pass-through Mode). The Master TV's clonable setup menu features should be configured as part of the Master TV Setup. If there are features in the Master TV's setup—channel icons or labels, digital font options, etc.—that are not set or that are set incorrectly, those features also will not be set or will be set incorrectly in the Target TVs. Refer to pages 32 to 40 for detailed information on cloning requirements and procedures.

Note: If desired, an Express Script TV Setup also may be used for cloning purposes.

External MPI Control

To control the TV using an external MPI control device, you must use the TV's GAME CONTROL/MPI port for communication purposes. In these TVs, Installer Menu item 118 POWER SAVINGS controls the power circuitry for both the embedded *b*-LAN module and the GAME CONTROL/MPI port; therefore, to ensure that the GAME CONTROL/MPI port circuitry is powered, thus enabling MPI communication, Installer Menu item 118 POWER SAVINGS must be set appropriately. See Installer Menu item descriptions as well as Reference section, "*b*-LAN Setup & Overview," for further information.

Note: These TV series are not equipped with MPI card slots.

Commercial Mode Overview (Cont.)

FTG Mode

This mode enables Pro:Idiom® decryption and also allows logical channel mapping of physical channels to remove the need for dash tuning. TV operation in FTG Mode is based on which element of the TV owns the FTG Logical Channel Map—the CPU or the EBL. Understanding the application in which the TV will be used is vital in determining the owner.

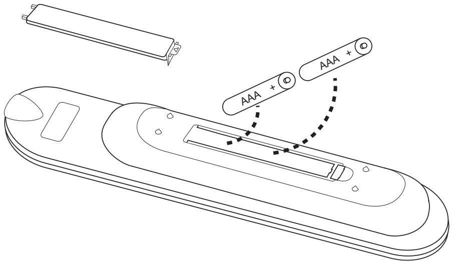
FTG Mode via CPU and FTG Mode via EBL are two separate and distinct FTG Modes of operation, each with its own unique advantages and requirements as described later in this document. When the TV CPU is configured with an FTG Channel Map, the CPU controls the operation of the TV, and when the EBL is configured with an FTG Channel Map, the EBL controls the operation of the TV.

Once it is determined whether the TV CPU or the EBL will own the FTG Channel Map, configuration can begin. Configuration of either requires a PC application—the LG FTG File Manager for the TV CPU or the LG FTG Device Configuration Application for the EBL. Each application provides utilities that enable you to create/edit an FTG Channel Map and configure Installer Menu settings. See pages 41 to 52 for further information on FTG Mode operation and configuration.

Remote Management in FTG Mode

When the TV is configured for FTG Mode via CPU, remote management of the FTG Channel Map and FTG Installer Menu settings is provided by a Pro:Centric server. Refer to the ***Pro:Centric™ Server Admin Client User Guide*** for further information.

When the TV is configured for FTG Mode via EBL, the *b*-LAN module, which is internal to the TV, allows hospital/institution head end equipment (for example, an FMA-LG101) with *b*-LAN technology to communicate with the TV to provide remote management of the FTG Channel Map and FTG Installer Menu settings. See Reference section, “*b*-LAN Setup & Overview,” for further information.



Installing Batteries in Installer Remote

- Remove the battery compartment cover on the back side of the remote by pressing the arrow tab forward and lifting.
- Install two high-quality alkaline 1.5V AAA batteries. Never mix old or used batteries with new ones. Install batteries matching correct polarity as shown (+ with + and - with -).
- Replace the battery compartment cover.

Pro:Centric TV Interactive Menu Features

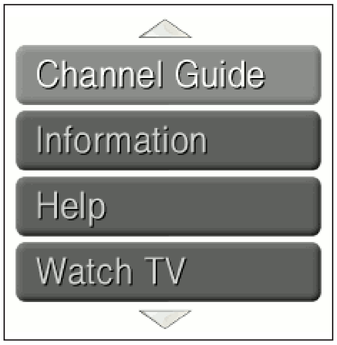
The interactive Pro:Centric TV enables patients and visitors—from the comfort of their hospital rooms—to view and select from a complete listing of hospital services and amenities. The Pro:Centric TV is connected to the hospital's billing computer, and service/amenities charges are billed at the time of order.

Interactive amenities may include:

- Hospital information, news, and events
- Directory services (local restaurants, hotels, shopping centers, etc.)
- Interactive maps (hospital guest dining areas, gift shops, etc.)
- Local weather condition and forecast information

Use the Pro:Centric pillow speaker to operate both interactive menus and regular TV features. Press **PORTAL** on the Pro:Centric pillow speaker to access the interactive menus.

Note: Interactive menu options may vary, depending on Pro:Centric features enabled for the site. The following are default interactive menus.



Channel Guide
Shows available TV networks and logical channels. When available, electronic program guide (EPG) data provides additional channel and program information.

Information
Typically displays hospital information, as well as information on local weather and services.

Help
Provides help for navigating the interactive menus.

Watch TV
Removes the interactive menu from the screen and returns to the previously tuned TV channel.

Pro:Centric Setup

The Pro:Centric server provides the following functionality:

- Remote management/administration (TV E-Z Installation): The Pro:Centric server Admin Client provides remote management/administration facilities for downloading splash screens and software/firmware updates as well as facilities for downloading FTG Channel Map and FTG Installer Menu settings for TVs that are in FTG Mode via CPU.

  The Data Channel must be set appropriately in the Installer Menu (item 119 DATA CHANNEL) to enable Pro:Centric remote management/administration facilities.

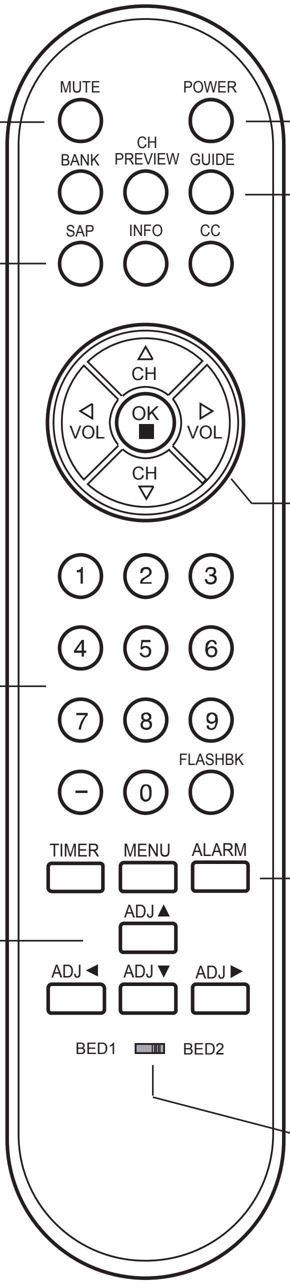
- Pro:Centric application: The application, which operates in conjunction with FTG and PPV Modes, comprises the Pro:Centric interactive menus/features described above. Pro:Centric application settings are managed via the Pro:Centric server Admin Client.

  In addition to the Data Channel, the Pro:Centric Application Mode must be set appropriately in the Installer Menu (item 098 PRO:CENTRIC) to enable the Pro:Centric application.

Administration and management options for the Pro:Centric server are described in detail in the ***Pro:Centric™ Server Admin Client User Guide***. This document describes only those settings that must be specified on the TVs.

Installer Remote Control Typical Key Functions

An LG Installer Remote (p/n: 124-213-07) is required to set up and operate the TV. The LG Installer Remote illustrated below and throughout this document shows typical remote control functions and is provided for reference only. This Installer Remote may vary from the Installer Remote supplied with the TV.



MUTE
Switches sound On or Off.

SAP
Analog Mode: Selects MTS sound (Mono, Stereo, or SAP). DTV Mode: Changes the audio language, if additional languages are available. *

INFO
Displays channel information. **

CC
Press to activate subtitles, unless the Channel Preview/Banks Setup Menu is currently on the screen, in which case this option displays the Lock (V-Chip) Menu.

NUMBER Buttons (0 - 9) & DASH
Use to enter a program number or channel. Dash is used for sub-channel numbers such as 9-1, 9-2, etc.

FLASHBK (Flashback)
Returns to the previously tuned channel.

Up/Down/Left/Right Arrows
Use to navigate on-screen menus and adjust TV settings to your requirements.

POWER
Turns the TV On or Off.

BANK
Selects Channel Bank 1, 2, 3, or 4.

CH PREVIEW
Displays and exits the Channel Preview/Banks Setup Menu.

GUIDE
Function not supported on these TVs.

CHANNEL UP/DOWN
Selects available channels found with Auto Tuning (Auto Search).

VOLUME UP/DOWN
Increases/decreases sound level.

OK (Enter)
Use to direct tune channels and also to adjust TV settings.

TIMER
Sets the amount of time before the TV automatically turns itself Off.

MENU
Displays the TV setup menus on the screen. Also exits the on-screen menu system and returns to TV viewing.

ALARM
Enables users to schedule a one-time “alarm” event, in which the TV turns itself On at the user-specified time.

Bed Switch
Set to Bed 1 or Bed 2 as applicable (per Installer Menu item 027 HOSPITAL MODE setting).

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* SAP notes:
- SAP settings are retained for individual analog channels when TV is turned Off/On.
- If SAP is selected and no SAP is provided, sound may not be heard on channel.
- Each analog channel may have its own SAP setting.
- Digital channels will reset to default audio language when TV is turned Off/On.

** The INFO feature is only applicable if the TV is configured for Pro:Centric operation.

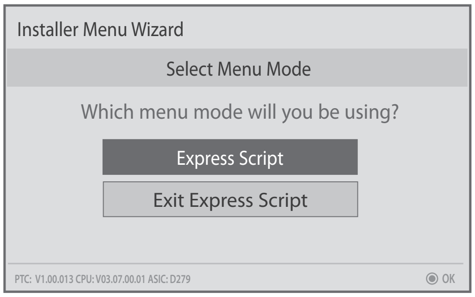
Express Script Installer Menu Wizard

The Express Script Installer Menu Wizard guides you through the process of setting up the essential items for most hospital TV viewing applications and is displayed each time the TV is turned ON, unless it previously has been completed or exited.

Note: If previously completed or exited, the Express Script Installer Menu Wizard can be re-activated from the Installer Menu—set Installer Menu item **117 FACT DEFAULT** to **001** to initiate the Express Script Installer Menu Wizard. See the “Installer Menu” section of this document for further information.

Note: If you plan to create a customized Master TV Setup using the procedure on pages 15 to 18, transfer (Teach) a Master TV Setup to a Target TV, or configure a TV for FTG Mode of operation, be sure to exit the Express Script in order to avoid setup conflicts that may cause the TV to malfunction.

⚠ **Note: If you bypass the Express Script, pillow speaker functionality will not be enabled unless you set Installer Menu item 027 HOSPITAL MODE appropriately. See the “Installer Menu” section of this document for further information.**


Installer Menu Wizard

Select Menu Mode

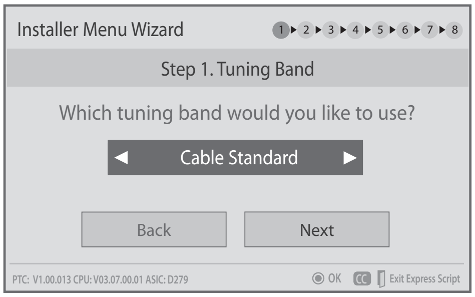
Which menu mode will you be using?

Upon launching, the Express Script Installer Menu Wizard prompts you to select a menu mode. Use the Up/Down arrow keys on the Installer Remote to select the appropriate option:

- Select/highlight **Express Script** in order to proceed with the Installer Menu Wizard. Then, press **OK (Enter)** on the Installer Remote.
- Select/highlight **Exit Express Script** to exit the Installer Menu Wizard. Then, press **OK (Enter)** on the Installer Remote.

The following procedure describes the Express Script Installer Menu Wizard. Use the Installer Remote to make selections and complete each step. You can select the Back button, where available, to check previous settings, as necessary.

⚠ **Note: If you opt to exit the Express Script Installer Menu Wizard at any time while it is in progress, any settings made will not be retained.**


Installer Menu Wizard

Step 1. Tuning Band

Which tuning band would you like to use?

Cable Standard

1. **Select the tuning band.**

   Use the Left/Right arrow keys to select the appropriate tuning band (Cable Standard [default], Cable HRC, Cable IRC, or Air). When you have made your selection, use the arrow keys to select **Next**, and then press **OK (Enter)**.

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Express Script Installer Menu Wizard (Cont.)

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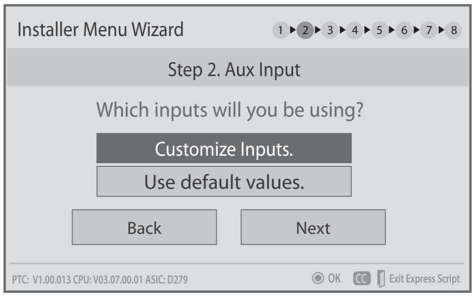

Installer Menu Wizard

Step 2. Aux Input

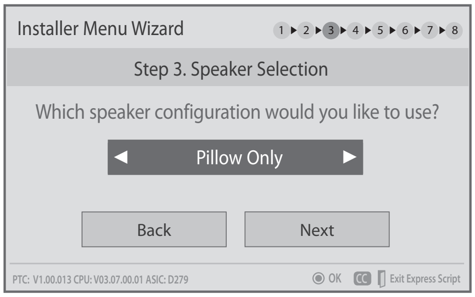
Which inputs will you be using?

1 ▸ 2 ▸ 3 ▸ 4 ▸ 5 ▸ 6 ▸ 7 ▸ 8
Customize Inputs.
Use default values.
Back
Next
PTC: V1.00.013 CPU: V03.07.00.01 ASIC: D279
OK
CC
Exit Express Script

2. **Select the Aux inputs.**

   Use the Up/Down arrow keys to select the desired Aux input option(s). (Note: If you simply select **Next** and press **OK (Enter)** in this step, default values will be used.)

   - To customize settings, select **Customize Inputs** and press **OK (Enter)**. Aux input options are displayed in a pop-up window. Use the arrow keys to select the input(s) to enable or disable. When you are finished, press **MENU** to close the pop-up window. Then, continue with step 3.
   - To use default values, select **Use default values** and press **OK (Enter)**. Then, continue with step 3.


Installer Menu Wizard

Step 3. Speaker Selection

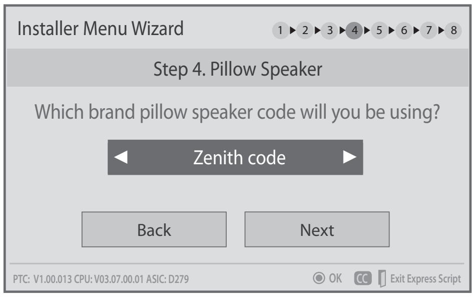
Which speaker configuration would you like to use?

Pillow Only

1 ▸ 2 ▸ 3 ▸ 4 ▸ 5 ▸ 6 ▸ 7 ▸ 8
◀ ▶
Back
Next
PTC: V1.00.013 CPU: V03.07.00.01 ASIC: D279
OK
CC
Exit Express Script

3. **Select the speaker configuration.**

   Use the Left/Right arrow keys to select the appropriate speaker (Pillow Only [default], TV Only, or Pillow & TV). When you have made your selection, use the arrow keys to select **Next**, and then press **OK (Enter)**.


Installer Menu Wizard

Step 4. Pillow Speaker

Which brand pillow speaker code will you be using?

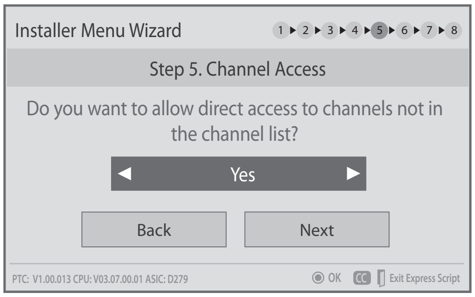
Zenith code

1 ▸ 2 ▸ 3 ▸ 4 ▸ 5 ▸ 6 ▸ 7 ▸ 8
◀ ▶
Back
Next
PTC: V1.00.013 CPU: V03.07.00.01 ASIC: D279
OK
CC
Exit Express Script

4. **Select the pillow speaker code.**

   If using the Zenith pillow speaker code (default), you can simply select **Next** and press **OK (Enter)**.

   Otherwise, select the pillow speaker code field, and use the Left/Right arrow keys to select the appropriate option. When you have made your selection, use the arrow keys to select **Next**, and then press **OK (Enter)**.


Installer Menu Wizard

Step 5. Channel Access

Do you want to allow direct access to channels not in the channel list?

Yes

1 ▸ 2 ▸ 3 ▸ 4 ▸ 5 ▸ 6 ▸ 7 ▸ 8
◀ ▶
Back
Next
PTC: V1.00.013 CPU: V03.07.00.01 ASIC: D279
OK
CC
Exit Express Script

5. **Choose whether to allow access to channels outside the channel lineup.**

   To allow direct access to channels outside the channel lineup (default: Yes), you can simply select **Next** and press **OK (Enter)**. To limit access to only the channel lineup (after the Express Script is complete) and restrict access to the TV setup menus, select the channel access field, and use the Left/Right arrow keys to select "No."

   When you have made your selection, use the arrow keys to select **Next**, and then press **OK (Enter)**.

   Note: It is recommended that you select "No" to limit access to the channel lineup and prevent end users from accessing channel settings; i.e., the Channel Menu will be inaccessible/grayed out.

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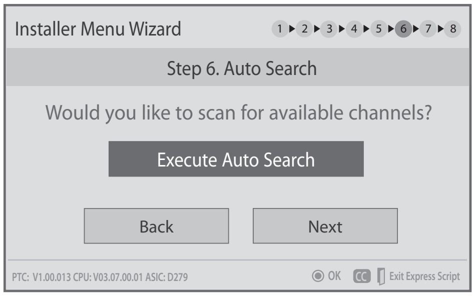

Installer Menu Wizard

Step 6. Auto Search

Would you like to scan for available channels?

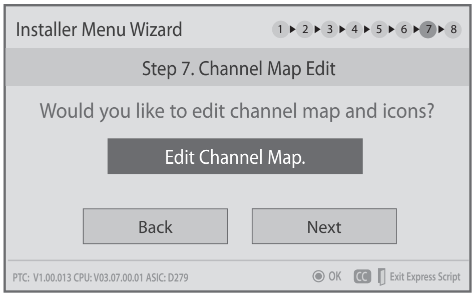
6. **Run the Auto Search (Auto Tuning).**

   Select **Execute Auto Search** and press **OK (Enter)** to start the channel scan (searches for all available analog and digital channels). The system will display progress of the channel scan in a pop-up window. The scan typically takes a few minutes.

   When the channel scan is complete, press **OK (Enter)** on the Installer Remote to close the pop-up window. Then, continue with step 7.

   Note: If you do not want to run the Auto Search (for example, if you intend to manually add only a small number of channels), use the arrow keys to select **Next**, and then press **OK (Enter)**, and continue with step 7.

   Note: You MUST select Execute Auto Search and press OK (Enter) in order to run the channel scan. If you move on to the next step without running the Auto Search, there will be no channels in the channel lineup (Channel Map).


Installer Menu Wizard

Step 7. Channel Map Edit

Would you like to edit channel map and icons?

7. **Edit the Channel Map.**

   This option enables you to add/delete channels, select channel icons, add channel labels, and/or set up channel banks before the Channel Map is transferred to the PTC (see step 8).

   Note: The maximum number of channels (analog, digital, and Aux inputs) that can be transferred to the PTC is 141. An attempt to transfer more than 141 channels of any combination will result in a Channel Map of exactly 141 channels; any extra channels will not be available in the PTC Channel Map. For example, if you enabled three Aux inputs in step 2 and the Auto Search found 141 channels, you must edit the Channel Map to decrease the number of analog/digital channels to (at most) 138.

   Select **Edit Channel Map** and press **OK (Enter)** to edit the Channel Map. Channel edit options will be displayed in a pop-up window (see example on following page). Use the Up/Down arrow keys to navigate between fields:

   - Input & CH: Edit the channel lineup, as necessary, to include only free to guest (non-encrypted) channels. Use the Left/Right arrow keys to select channels, and press **OK (Enter)** to add/delete channels per your system requirements.

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Express Script Installer Menu Wizard (Cont.)

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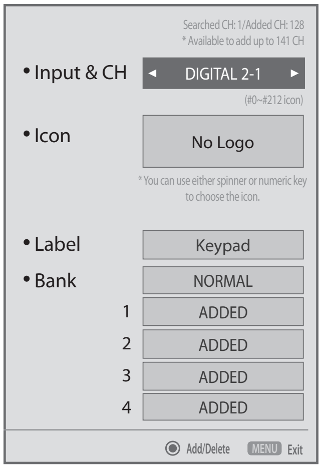


Searched CH: 1/Added CH: 128
* Available to add up to 141 CH

Input & CH: DIGITAL 2-1
(#0~#212 icon)

Icon: No Logo
* You can use either spinner or numeric key to choose the icon.

Label: Keypad

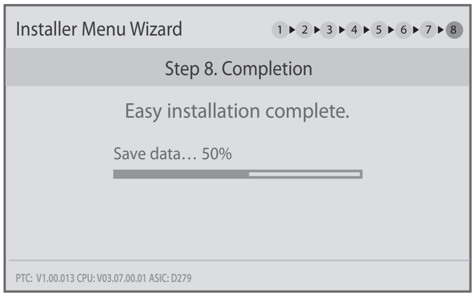
Bank: NORMAL
1 ADDED
2 ADDED
3 ADDED
4 ADDED

- Icon: Use the Left/Right arrow keys or key in the icon number to select the appropriate trademark/icon for each channel's Channel-Time on-screen display. Icons are available for familiar channels, such as ABC, CBS, NBC, etc. Identifiable icons should enable the end user to readily know what common networks are available.
- Label: Press **OK (Enter)** to display the alphanumeric keypad, and add custom text labels for each channel, as desired. Added custom labels will be displayed above the Label/Keypad field for each channel, as applicable.
- Bank: Use the arrow keys to define channel banks, as desired. See pages 28 to 31 for further information on channel banks.

When you are finished, press **MENU** to close the pop-up window. Use the arrow keys to select **Next**, and then press **OK (Enter)**.

Note: You can also edit/add channel icons and/or custom text labels in 2-5-4 + MENU Mode after the Express Script is completed, if necessary. See page 27 for further information.

Note: If access to the channel lineup will be limited at the completion of the Express Script (see step 5) and you would like to set up channel banks at a later time, you will need to set Installer Menu item 028 CH. OVERIDE to 001 to enable access to the Channel Preview/Banks Setup Menu.



Installer Menu Wizard

Step 8. Completion

Easy installation complete.

Save data… 50%

PTC: V1.00.013 CPU: V03.07.00.01 ASIC: D279

8. Completion

For the final step, the TV will save your settings and transfer the setup to the commercial controller (PTC) (similar to 2-5-5 + MENU Mode during Custom Master TV Setup). When this step is complete, the system exits the Express Script Installer Menu Wizard.

Note: If desired, you can copy the Express Script TV setup to a cloning tool—a USB memory device or a clone programmer—for transfer to Target TVs. See cloning procedures in this document.

Custom Master TV Setup

This section describes how to create a customized Master TV Setup for cloning purposes when the TV is in Pass-through Mode.

Note: Refer to FTG Mode information on pages 41 to 52 for details on entering FTG Mode and configuring/editing FTG Channel Map and FTG Installer Menu settings.

Before You Begin

- It is recommended that you disconnect all Aux inputs if you intend to run Auto Tuning (Channel Search). Under certain conditions, Auto Tuning is disabled if there is an Aux input active.
- If not disabled in the Installer Menu, Aux sources will appear in the channel scan between analog and digital channels after the TV setup is transferred to the commercial controller (PTC).
- Determine which cloning tool—USB memory device or clone programmer—is appropriate for your application; several of the Master TV Setup procedure steps are dependent on the cloning tool to be used. See “Cloning Methods” at right for further information.
- If you intend to use a USB memory device, determine the type of file—either the new “.tlx” file format or the legacy “.tll” file format—to use for cloning purposes; several of the Master TV Setup procedure steps are dependent on the desired file type. See “Cloning Methods” at right for further information.
- If the Express Script Installer Menu Wizard is present on the display, exit the Express Script before beginning/continuing the Custom Master TV Setup procedure.

Cloning Methods

See also “Clonable TV Setup Menu Features” list below.

Using a USB Memory Device / .tlx File

- The .tlx file format clones Installer Menu settings and all TV sources’ (analog, digital, AV1, HDMI, etc.) clonable setup menu settings.
- Not intended for cloning an auto-tuned/edited Channel Map, as the channel lineup is converted to a logical FTG Channel Map when saved (Learned) from a TV to a .tlx file. If the .tlx file with the FTG Channel Map is then used for Teaching purposes, all Target TVs will be configured for FTG Mode via CPU.

Using a USB Memory Device / .tll File

The .tll file format clones the contents of the commercial controller (PTC) memory, including an auto-tuned/edited Channel Map, Installer Menu settings, and one TV source’s (analog, digital, or Aux) clonable setup menu settings.

Using a Clone Programmer (TLL-1100A or LT2002)

Both the TLL-1100A and LT2002 clone the contents of the commercial controller (PTC) memory, including an auto-tuned/edited Channel Map, Installer Menu settings, and one TV source’s (analog or Aux) clonable setup menu settings.

Clonable TV Setup Menu Features

Channel
- Auto Tuning (Channel Lineup)
- Manual Tuning
- Channel Edit
- Channel Label

Picture
- Aspect Ratio
- Picture Mode

Audio
- Auto Volume
- Clear Voice
- Sound Mode
- Balance
- TV Speaker

Time
- Auto Clock
- Auto Off (Sleep Timer)

Option
- Language
- Caption
- Power Indicator

Lock
- Movie Rating
- TV Rating – Children
- TV Rating – General

Notes:
- Some menu options vary between analog and digital channels and Aux inputs.
- The end user only has access to features that are available on the pillow speaker or the user remote control if provided by the institution.

Custom Master TV Setup (Cont.)

Custom Master TV Setup Procedure

1. **Set Installer Menu items.**

   This step provides specific instruction only on the Installer Menu items that should be set on a Master TV. Refer to pages 19 to 26 for detailed information on all Installer Menu items.

   a) Make sure the TV is ON. Then, use the Installer Remote to enter the PTC Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9-8-7-6** + **OK (Enter)**.

   b) Set Installer Menu item **117 FACT DEFAULT** to **001** and press **OK (Enter)** on the Installer Remote.

   This clears all Installer Menu custom settings, channel lineup, etc. and reloads the factory default settings. The value will change back to 0 after the PTC has been restored to factory default condition. This step ensures that the TV Channel Memory will be the active channel lineup.

   c) Set Installer Menu item **003 BAND/AFC**, as appropriate.

   - Broadcast: Set to 000.
   - CATV: Set to 001 (default).
   - HRC: Set to 002.
   - IRC: Set to 003.

   d) Set Installer Menu item **027 HOSPITAL MODE**, as appropriate, to select the speaker configuration.

   e) Set any other Installer Menu items that affect your TV programming network to the required configuration. For example, enable/disable Aux inputs, set a Start Channel, etc.

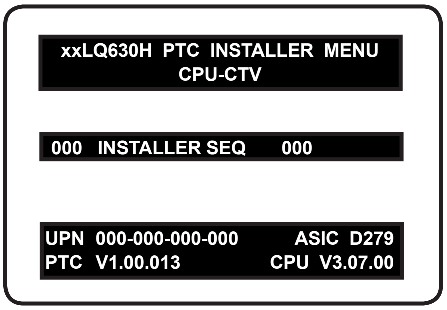
   f) After you have adjusted all Installer Menu item settings as required, press **OK (Enter)** once on the Installer Remote to save your changes; then, press **OK (Enter)** again to exit the menu.

2. **Set up TV features.**

   On-screen setup menus control the features of the TV. Press **MENU** on the Installer Remote to access the TV setup menus, and then set Channel, Picture, Audio, Lock, Time, etc. options to the desired configurations. See also Clonable TV Setup Menu Features list on previous page.

   Note: If you intend to clone the PTC, remember that only one TV source's clonable setup menu settings will be cloned. Thus, for a clone programmer, the TV setup menu settings should be applicable to either an analog channel or Aux input, while for a USB device / .tll file, the TV setup menu settings should be applicable to the analog or digital channel or Aux input to which the Target TV will be set during the Teaching process.

   Note: If desired and if appropriate depending on the cloning method you intend to use (see "Cloning Methods" on previous page), you can run Auto Tuning (see step 3) prior to completing this step.



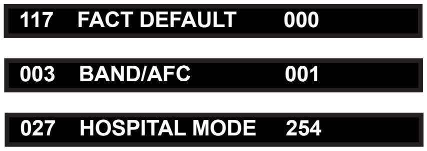
```
xxLQ630H  PTC  INSTALLER  MENU
           CPU-CTV

000   INSTALLER SEQ      000

UPN  000-000-000-000          ASIC  D279
PTC  V1.00.013               CPU  V3.07.00
```

Typical Installer Menu

Note: The Installer Menu header will vary depending on the TV you are setting up.

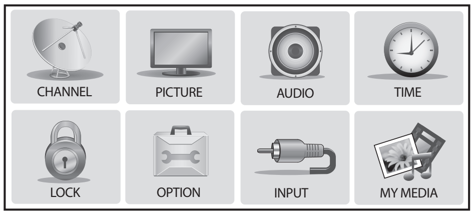


```
117    FACT DEFAULT       000

003    BAND/AFC           001

027    HOSPITAL MODE      254
```

Adjust the values for these Installer Menu items.



Set the TV features to the desired configuration for the end user.

Audio Menu Note: Audio Menu options are inaccessible (grayed out) if TV Speaker is not selected (i.e., Pillow Only is selected).

Lock Menu Note: Press 0-3-2-5 to access the Lock Menu if the Lock System is active and the password is not available.

(Continued on next page)

(Continued from previous page)

3. **(Optional) Run Auto Tuning.**

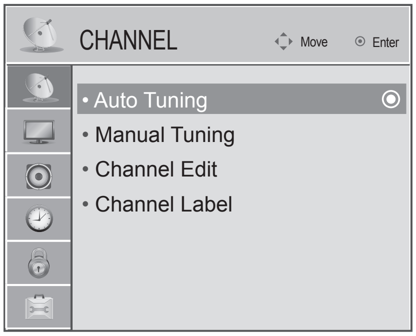
Note: If you intend to use a USB memory device / .tlx file for cloning purposes, DO NOT run Auto Tuning. If you Teach a .tlx file with an auto-tuned/edited Channel Map to a Target TV, this will put the Target TV in FTG Mode via CPU. Proceed to step 6 to verify the TV setup. (Steps 4 and 5 are not applicable for .tlx files.)

If you run Auto Tuning with the intention to clone the resulting Channel Map, you must use a USB memory device / .tll file or a clone programmer for this cloning purpose.

a) To search for all available analog and digital channels, go to the Channel Menu, select the **Auto Tuning** option, and follow the on-screen instructions.

b) Use the **Channel Edit** option in the Channel Menu to edit the channel lineup, as necessary, to include only free to guest (non-encrypted) channels.

- Add/delete channels per your system requirements.
- Use the **Channel Label** option in the Channel Menu to select the appropriate trademark/icon for each channel's Channel-Time on-screen display. Icons are available for familiar channels, such as ABC, CBS, NBC, etc. Identifiable labels (icons) should enable the end user to readily know what common networks are available.



Use Channel Menu options to run Auto Tuning, edit channels, and select channel icons.

Note: If you intend to clone the PTC and Installer Menu item 103 ATSC TUNE MODE is set for Physical Channel tuning (default and recommended setting), channels with minor channel numbers higher than 255 will not transfer correctly in step 4. If item 103 is set for Virtual Channel tuning and either the major or minor channel numbers are higher than 255, the channel(s) will not transfer correctly in step 4.

Note: If you intend to clone the PTC, you can add the channel icons in this step or as described in step 5. Also in step 5, you can add custom text labels for channels without icons.

4. **Transfer the TV setup menu settings to the commercial controller (PTC): 2-5-5 + MENU Mode**

Note: This step is essential for successful cloning using a USB memory device / .tll file or a clone programmer. Without this step, the PTC will not contain any of the TV setup menu settings.

Note: The maximum number of channels (analog, digital, and Aux inputs) that can be transferred to the PTC is 141. An attempt to transfer more than 141 channels of any combination will result in a Channel Map of exactly 141 channels; any extra channels will not be available in the PTC Channel Map. For example, if you enabled three Aux inputs in the Installer Menu and Auto Tuning found 141 channels, you must edit the Channel Map to decrease the number of analog/digital channels to (at most) 138.

(Continued on next page)

Custom Master TV Setup (Cont.)

(Continued from previous page)

a) After the TV channel lineup has been edited and channel label icons added, tune to the channel (source) for which you wish to transfer TV setup menu settings.

Note: If you intend to use a clone programmer for cloning purposes, this must be either an analog channel or Aux input.

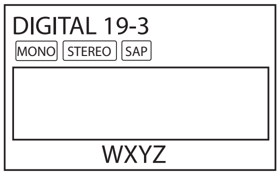
b) Enter the Installer Menu, and press **2-5-5** + **MENU** on the Installer Remote to initiate the transfer of the Master TV Setup to the PTC. The TV exits the Installer Menu and then tunes through the channels in the channel lineup during the transfer. When the transfer is complete, the TV tunes back to the channel that was tuned before the transfer began.

Note: Scan Mode is not functional until the TV setup is transferred.

5. **(Optional) Add Custom Channel and Aux Input Labels: 2-5-4 + MENU Mode**

   Note: 2-5-4 + MENU Mode enables you to add/edit channel icons and custom text labels in the PTC once the Master TV Setup has been transferred as described in the previous step.

   Enter the Installer Menu, and press **2-5-4** + **MENU** on the Installer Remote. Add/edit custom text labels and/or change icons for the Channel-Time on-screen displays (see 2-5-4 + MENU procedural information on page 27). Note that broadcast digital channels often already have a broadcaster generated label. When you are finished, press **MENU** to exit 2-5-4 + MENU Mode.



Custom Text Label “WXYZ” created in 2-5-4 + MENU Mode.

6. **Verify the TV setup.**

   Verify that the channel lineup, channel icons, and custom text labels are correct. Also, make sure the TV features are set per your requirements.

028 CH. OVERIDE 000

After verifying the TV Setup, set Installer Menu item 028 CH. OVERIDE to 000.*

* This step prevents end users from accessing channel settings (i.e., the Channel Menu will be inaccessible/ grayed out).

7. **Set up channel banks.**

   Set up channel banks, as desired (see pages 28 to 31).

   Note: When you lock the channel lineup (see next step), the Channel Preview/Banks Setup Menu is no longer accessible via the Installer Remote. If you wish to set up channel banks at a later time, you will need to set Installer Menu item 028 CH. OVERIDE to 001 to enable access to the Channel Preview/Banks Setup Menu.

8. **(Recommended) Lock the channel lineup.**

   Enter the Installer Menu. Set item **028 CH. OVERIDE** to **000** and press **OK (Enter)** to lock the channel lineup and restrict access to the TV setup menus. Press **OK (Enter)** again to save your changes and exit the Installer Menu. *

The Master TV Setup is now ready to be copied to the predetermined cloning tool—a USB memory device or a clone programmer. See cloning procedures in this document.

Installer Menu

Use the Installer Menu to set up, change, or view operational settings. Refer to the table starting on the next page for brief descriptions of Installer Menu items. More detailed descriptions follow the table listing.

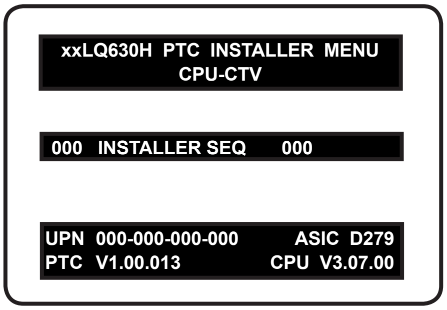
Accessing the Installer Menu

1. Make sure the TV is ON.
2. Using an Installer Remote, press **MENU** repeatedly until the on-screen display of the TV setup menus (if the TV is in Pass-through Mode) or the Function Menu (if the TV is not in Pass-through Mode) no longer toggles, and then press **9-8-7-6** + **OK (Enter)** to access the Installer Menu.

The Installer Menu opens with item 000 INSTALLER SEQ 000.

Note: If the password is not entered or registered correctly, you will see the message “ENTER PASSWORD 0000” at the top of the screen instead of the Installer Menu header. Once you re-enter the correct password (i.e., press **9-8-7-6** + **OK [Enter]**), the Installer Menu will display.

Note: If the TV is in FTG Mode, the Installer Menu is accessible as read-only. Refer to pages 41 to 52 for information on FTG Mode configuration.



xxLQ630H PTC INSTALLER MENU
CPU-CTV

000 INSTALLER SEQ 000

UPN 000-000-000-000 ASIC D279
PTC V1.00.013 CPU V3.07.00

Typical Installer Menu

Using the Installer Menu

Refer to the table on pages 20 and 21 for an overview of the available Installer Menu items, including their item numbers, functions, value ranges, and default values.

Installer Menu items not relevant to these TV series are not present in the Installer Menu; therefore, some numbers are missing. For example, item 006 will not appear. In addition, items that are dependent on other Installer Menu item settings will not be initially accessible. For example, item 046 STRT AUX SRCE will not display in the Installer Menu unless item 004 STRT CHANNEL is set to 0.

Navigation within the Installer Menu

Use the Up/Down arrow keys on the Installer Remote to sequence through the available menu items, or access an item directly by keying in the item number and then pressing **MENU**. For example, to access the SLEEP TIMER option, which is item 015, press 0-1-5 + MENU.

Changing Installer Menu Settings

To change an Installer Menu item value, use the Left/Right arrow keys on the Installer Remote, or enter a valid value directly. To save the new setting, press **OK (Enter)**, or use the Up/Down arrow keys to navigate to a new Installer Menu item if you have additional items to edit. Note that invalid values will not be saved.

As part of the Installer Menu header, two 3-character acronyms are displayed to indicate the TV’s current configuration mode. The table below lists all possible mode identifiers for these TV models.

Acronym	Description
CPU-CTV	Pass-through Mode with Channel Map in CPU
CPU-FTG	FTG Mode via CPU
EBL-FTG	FTG Mode via EBL
EBL-LNT	LodgeNet PPV Mode
MPI-EXT	External MPI Control
PTC-CTV	Pass-through Mode with Channel Map in PTC

Exiting the Installer Menu and Activating Updates

After you have adjusted all Installer Menu item settings as required, press **OK (Enter)** once on the Installer Remote to save your changes; then, press **OK (Enter)** again to exit the Installer Menu. Any changes you make will be stored in non-volatile memory.

Note: Each time you exit the Installer Menu in Pass-through Mode, all V-Chip (Parental Control) settings in the TV are reset to their default values; that is, the Lock System, if previously enabled from the Lock setup menu (see the Owner’s Manual for additional information), will now be disabled, and the individual Parental Control settings will be restored to default values.

Installer Menu (Cont.)

Installer Menu Items 000 through 070

Menu Item	Function	Value Range	Default Value	Brief Description of Function
000	INSTALLER SEQ	0 ~ 3	0	Leave default set to 0.
001	POWER MANAGE	0 ~ 7	0	Sets number of hours of no activity before automatic shutoff.
002	AC ON	0 / 1	0	Set to 1 to enable Auto Turn ON when AC power is applied.
003	BAND/AFC	0 ~ 3	1	Selects Tuning Band: 0=Broadcast, 1=CATV, 2=HRC, 3=IRC
004	STRT CHANNEL	0 ~ 127, 255	255	Channel tuned when TV is turned ON. (Set to 255 to tune to channel tuned before TV turned OFF.)
005	CHAN LOCK	0 / 1	0	If set to 1, cannot tune from current channel.
007	STRT VOLUME	0 ~ 63, 255	255	Volume level when TV is turned ON. (Set to 255 to use volume level before TV turned OFF.)
008	MIN VOLUME	0 ~ 63	0	Sets minimum allowable volume setting.
009	MAX VOLUME	0 ~ 63	63	Sets maximum allowable volume setting.
010	MUTE DISABLE	0 / 1	0	Set to 1 to disable Mute Function.
011	KEY DEFEAT	0 / 1	1	Set to 1 to disable menu navigation keys on display panel.
012	IR BANKS EN.	0 / 1	0	Set to 1 to enable TV to respond to bank discrete IR codes.
013	SCAN MODE	0 / 1	1	Set to 1 to allow Channel Up/Down to turn ON TV. (See detailed descriptions.)
014	STRT CH IN SM	0 / 1	0	Set to 1 to use the Start Channel for the Channel Map pivot point in Scan Mode.
015	SLEEP TIMER	0 / 1	1	Set to 1 to enable Sleep Timer.
016	EN TIMER	0 / 1	1	Set to 1 to enable On/Off Timers.
017	ALARM	0 / 1	1	Set to 1 to enable Alarm.
020	FEATURE LEVEL	0 ~ 1, 16 ~ 24, 64 ~ 65	1	Determines an additional IR code scheme to which the TV will respond.
021	V-CHIP	0 / 1	1	Set to 1 to enable V-Chip (Parental Control) functions.
022	MAX BLK HRS	0 ~ 99	12	Sets number of V-Chip blocking hours.
023	CAPTION LOCK	0 / 1	0	Set to 1 to retain caption setting before TV turned Off.
025	FUNCTION PRE.	0 ~ 1	1	Set to 1 to allow Channel Preview/Banks Setup Menu access via CH PREVIEW key on Installer Remote.
027	HOSPITAL MODE	0 ~ 162, 254	254	Set according to the speaker selection, the pillow speaker code/supply voltage, and the hospital IR code. See detailed instructions.
028	CH. OVERIDE	0 / 1	1	If set to 0, limits direct access to favorite channels.
029	OLD OCV	0 / 1	0	Set to 1 to change MPI operation to OCV.
030	ACK MASK	0 / 1	0	If set to 1, enables ACK feature of MPI.
031	POLL RATE	20 ~ 169	94	Selects poll rate for MPI.
032	TIMING PULSE	186 ~ 227	207	Sets baud rate for MPI.
035	COMPPORT EN.	0 / 1	1	Set to 0 to disable HDMI 1. Set to 1 enable HDMI 1.
039	REAR AUX EN	0 / 1	1	Set to 1 to enable display panel Video 1 input jack.
046	STRT AUX SRCE	1, 3 ~ 5, 255	255	Sets the starting Aux source (if item 004 STRT CHANNEL is set to 0).
047	AUX STATUS	0 / 1	0	Set to 1 for MPI Aux source to be reported as a channel number instead of Channel 0.
053	DIS. CH-TIME	0 / 1	0	Set to 1 to disable Channel-Time display.
069	EN. CH-T COL.	0 / 1	1	Set to 1 to enable custom color for the Channel-Time display.
070	FOR. CH-TIME	0 ~ 7	2	Chooses custom foreground color for the Channel-Time display.

Installer Menu Items 071 through 122

Menu Item	Function	Value Range	Default Value	Brief Description of Function
071	BCK. CH-TIME	0 ~ 7	2	Chooses custom background color for the Channel-Time display.
073	CH NOT AVBLE	0 / 1	0	If set to 1 and item 028 CH. OVERIDE is set to 0, “NOT AVAILABLE” message is displayed if user direct tunes a channel that is not in the favorite channel list.
075	REVERT CH	0 / 1	0	If set to 1 and loss of MPI communication occurs, TV tunes to Start Channel.
077	QUICK SHUTOFF	0 ~ 17	0	Allows TV to be turned OFF with press and hold of pillow speaker channel buttons. Set to 0 to disable. Set from 1 to 17 to define hold time. (See detailed descriptions.)
078	UPN MSB	0 ~ 255	255	User programmable number, most significant byte.
079	UPN MSB-1	0 ~ 255	255	User programmable number, most significant byte - 1.
080	UPN MSB-2	0 ~ 255	255	User programmable number, most significant byte - 2.
081	UPN LSB	0 ~ 255	255	User programmable number, least significant byte.
082	CHKSM ERROR	0 / 1	1	If set to 1, enforces rigid MPI checksum.
083	HANDSHK TIME	0 ~ 5	5	Relaxes MPI timing to be compatible with PC-based Windows-controlled systems.
084	PERMANENT BLK	0 / 1	0	Removes block hours setting for Parental Control and makes block permanent.
087	REAR RGB EN.	0/1/17	1	Set to 0 to disable RGB input. Set to 1 to enable RGB input. Set to 17 for Auto Configure.
088	EN NOISE MUTE	0 / 1	1	If set to 1, audio is muted if no signal is present.
090	KEY LOCK	0 / 1	0	If set to 1, keyboard is locked out, IR is still functional.
091	YPrPb2 EN	0 / 1	1	Set to 0 to disable HDMI 2. Set to 1 to enable HDMI 2.
094	SAP MENU EN	0 / 1	1	Set to 0 to disable feature on Function Menu. Set to 1 to enable feature on Function Menu.
096	DEF. ASP. RATIO	0 ~ 4	2	Sets default aspect ratio at power up. See detailed descriptions and item 106.
098	PRO:CENTRIC	0 ~ 2	0	Set to 0 to disable Pro:Centric operation. Set to 1 for Flash Mode. Set to 2 for GEM (Java Application) Mode.
099	BACK LIGHTING	1 ~ 100, 101 ~ 200, 201, 202, 255 *	255 (LQ630H) 100 (CQ610H)	Sets the level of the TV picture back lighting. (See detailed descriptions.)
102	ATSC BAND	0 ~ 4	4	Selects ATSC band.
103	ATSC TUNE MODE	0 / 1	1	Set to 1 (default) for Physical Channel scan. Set to 0 for Virtual Channel scan.
104	START MINOR CH	0 ~ 255	0	Selects Minor Start Channel. Set to 0 for NTSC.
106	ASP RATIO LOCK	0 / 1	0	To retain set aspect ratio on power cycle, set to 1. Set to 0 for default ratio on power cycle.
116	VIDEO MUTE EN	0 / 1	0	Set to 0 for Normal. Set to 1 for Blank.
117	FACT DEFAULT	0 / 1	0	Set to 0 for Normal. Set to 1 to load presets for all Installer Menu settings.
118	POWER SAVINGS	1 / 3	3	Set to 3 (default—*b*-LAN module only powered when TV is turned ON), or set to 1 (*b*-LAN module is always powered). (See detailed descriptions.)
119	DATA CHANNEL	0 ~ 135	0	Set to 0 to disable. Set to the RF channel number of the data channel for Pro:Centric or TV E-Z Installation data. (See detailed descriptions.)
121	P:C RF WAKE HR	0 ~ 23, 128	128	Sets the hour for Wake On RF. The value “128” is displayed as “OFF.” Directly entering 128 turns the Wake On RF feature OFF.
122	P:C RF WAKE MN	0 ~ 59	0	Sets the minute for Wake On RF.

* 201, 202, 255 applicable for LQ630H TVs only.

Caution: Installer Menu settings may affect options available from the TV setup menus or the Function Menu.

Detailed Descriptions of Installer Menu Items

000 - INSTALLER SEQUENCE
Specifies entry sequence to the Installer Menu.

0 = 9876
1 = 4321
2 = 1478
3 = 3698

001 - POWER MANAGE (Power Management)
Determines hours of no activity before automatic shutoff. The Power Management function is for saving energy. If set to 0, Power Management is Off. Settings range from 0 ~ 7, with 1 ~ 7 representing the hours that the unit will remain ON, unless there has been activity from either the control panel or remote control.

002 - AC ON (AC Power Switchable)
If set to 1, this allows the TV to turn ON when AC power is applied. Pressing the ON button is not necessary. This is desirable if the TV is plugged into a cable box or a power outlet controlled by a wall switch. Use the Left/Right arrow keys to choose 0 or 1, where 0 is the default (OFF), and 1 is ON.

Note: If set to 1 (ON), the TV does not respond to ON/OFF commands from either the remote or the display panel, and the SLEEP TIMER is also nonfunctional.

003 - BAND/AFC (Band/Automatic Frequency Control)
There are four possible settings for this option:

0 = Broadcast
1 = CATV (default)
2 = HRC
3 = IRC

If some channels were not found by Auto Tuning (Channel Search), select the appropriate Band setting here, and add the channels using the Channel Edit option in the Channel Menu.

004 - STRT CHANNEL (Start Channel)
If active, this function allows you to determine the initial Major Start Channel number when the TV is turned ON. This feature is useful for an in-house information channel, since the TV would always select that channel when it is turned ON. If set to 255, the last channel tuned before the TV was turned OFF will be the channel tuned when the TV is turned ON again.

0 = Aux
1 ~ 125 = Major CH #
126 = Map to Major CH 3
127 = Map to Major CH 4
255 = Last Channel

Note: For a digital Start Channel, always remember to set item 104 to the Minor Start Channel number.

Note: 126 and 127 are mapped only in LodgeNet PPV Mode.

005 - CHAN LOCK (Channel Lock)
Channel Lock is ideal if the system must always be on the same channel. Changing channels with the Channel Up/Down or keypad numbers is impossible. Channel Lock is inactive if set to 0 (default).

Generally, this feature is used in connection with item 004 STRT CHANNEL where the Start Channel may, for example, be set to 3 or 4. If the Start Channel is 3, then the TV will remain locked on channel 3.

NOTE: For items 007, 008, and 009
For legacy reasons, the scale used is 0 - 63. The PTC software will translate this to the 0 - 100 scale used by the TV.

To translate a TV volume level to the Installer Menu value, use the following formula:

$$\text{Installer Value} = \frac{\text{TV Value} \times 63}{100}$$

Enter only the whole number (disregard fractions).

007 - STRT VOLUME (Start Volume)
This function allows the Installer to determine the initial volume level setting when the TV is turned ON. This feature is useful for an in-house information channel, since the TV would always select that volume level when it is turned ON. The range of values are 0 - 63, 255. If 255 is selected, the current volume level will be retained in memory when the TV is turned OFF; at turn ON, the volume level will be automatically set at the previous or last level.

008 - MIN VOLUME (Minimum Volume)
This function determines the minimum volume level allowable with the Volume (VOL) Up/Down control. In this way, for example, someone cannot set the volume too low to hear. The value range is from 0 to 6. Use the Left/Right arrow keys to change values. The factory default is 0, which provides the full range of volume control, if item 009 MAX VOLUME is also set to 63. It may be best to set the same value on every TV.

Note: The minimum volume level cannot have a value setting higher than the maximum volume level (described below).

009 - MAX VOLUME (Maximum Volume)
This function determines the maximum volume level allowable with the Volume (VOL) Up/Down controls. In this way, for example, someone cannot set the volume level high enough to disturb others. The value range is 0 to 63, with 63 as the default, which gives the user the full range of volume control, if item 008 MIN VOLUME is also set at 0. Use the Left/Right arrow keys to change values. It may be best to set the same value on every TV.

Note: The maximum volume level cannot have a value setting lower than the minimum volume level (described above).

010 - MUTE DISABLE
Enables or disables sound mute function. If set to 1, sound cannot be muted. If set to 0, sound can be muted.

011 - KEY DEFEAT (Keyboard Defeat)
If set to 1, KEY DEFEAT prevents the end user from accessing the on-screen menu(s) from the display front panel—MENU, OK/ENTER, and menu navigation keys do not function. If set to 0, those keys do function.

Note: Users can always access the menu(s) by pressing MENU on the remote.

012 - IR BANKS EN (IR Banks Enable)
For direct access to a particular channel bank. When enabled, you can access a channel bank by inputting the discrete IR code for that bank.

Note: This item is not available in the Installer Menu when item 027 HOSPITAL MODE is set to 0.

013 - SCAN MODE (Functional after 2-5-5 + MENU transfer of Channel Map)
When set to 1 (default), allows TV to be turned ON when Channel Up/Down buttons are pressed on pillow speaker. Also, TV will turn OFF when Channel Up/Down key is used to tune above or below Channel Map pivot point. By default, Channel Map pivot point is between the highest and lowest channel in the Channel Map (also see item 014 STRT CH IN SM). Set to 0 to disable.

014 - STRT CH IN SM (Start Channel in Scan Mode)
Only valid when item 013 SCAN MODE is set to 1 (enabled). When set to 1, forces Channel Map pivot point to be between the RF channel designated in item 004 STRT CHANNEL and next lower channel in the Channel Map. Set to 0 to disable (default).

Note: This item is not available in the Installer Menu when item 013 SCAN MODE is set to 0.

015 - SLEEP TIMER
If set to 1, the Sleep Timer feature may be used. If set to 0, the Sleep Timer is not available.

016 - EN TIMER (Enable On/Off Timers)
If set to 1, the Timer function is available to the end user and enabled continuously. Set to 0 to disable On/Off timers.

Note: Clock must be set in order for timers to be used.

017 - ALARM
Gives the installer the option of making the Alarm function available to the end user. If set to 1, the Alarm function is available to the end user. Set to 0 to disable the Alarm function.

Note: Clock must be set before the Alarm function will work.

020 - FEATURE LEVEL
This function determines an additional IR code scheme to which the TV will respond, allowing for the use of unique IR codes based on “bed number” in a multi-TV single room installation. First determine the IR mode; then select the bed number.

Note: Item 027 HOSPITAL MODE must be set to 0 to enable Legacy Zenith Bed 1 or Bed 2 IR codes and Speaker selections.

Values	IR Mode	Bed #	Speaker
0 – 1	Legacy Zenith (Hospital)	1 – 2	TV
16 – 24	Multi-code Remote	1 – 9	TV
64 – 65	Legacy Zenith (Hospital)	1 – 2	Pillow

Note: For further information, see documentation for the accessory package that includes the multi-code remote.

021 - V-CHIP (Parental Control)
Set to 1 to activate V-Chip (Parental Control) and have it available to the end user to filter and control or otherwise restrict programming content that can appear. Set to 0 to turn the V-Chip feature Off (not available to user); no programming restrictions can be set.

022 - MAX BLK HRS (Maximum Block Hours)
Sets hours from 0 to 99 for the maximum V-Chip (Parental Control) block hours. Default setting is for 12 blocking hours.

Note: This item is not available in the Installer Menu unless item 084 PERMANENT BLK is set to 0.

023 - CAPTION LOCK
If set to 0, captions are OFF when the TV is turned ON. Set to 1 to use the caption setting configured before the TV was turned OFF when the TV is turned ON.

025 - FUNCTION PRE (Function Preview)
Set to 1 to allow access to the Channel Preview/Banks Setup Menu via the CH PREVIEW key on Installer Remote. Set to 0 to disable access to the Channel Preview/Banks Setup Menu.

027 - HOSPITAL MODE
Set according to the speaker selection, the pillow speaker code/supply voltage and the hospital IR code.

Value	Speaker	Pillow Speaker Code/Voltage	Hospital IR Code
000	Determined by item 020 setting	Zenith (+12v)	Disabled
001	Pillow Only	Zenith (+12v)	Zenith Bed #1
002	Pillow Only	Zenith (+12v)	Zenith Bed #2
017	Pillow Only	Philips (+5v)	Zenith Bed #1
018	Pillow Only	Philips (+5v)	Zenith Bed #2
033	Pillow Only	RCA (-5v)	Zenith Bed #1
034	Pillow Only	RCA (-5v)	Zenith Bed #2
065	TV Only	Zenith (+12v)	Zenith Bed #1
066	TV Only	Zenith (+12v)	Zenith Bed #2
081	TV Only	Philips (+5v)	Zenith Bed #1
082	TV Only	Philips (+5v)	Zenith Bed #2
097	TV Only	RCA (-5v)	Zenith Bed #1
098	TV Only	RCA (-5v)	Zenith Bed #2
129	Pillow & TV	Zenith (+12v)	Zenith Bed #1
130	Pillow & TV	Zenith (+12v)	Zenith Bed #2
145	Pillow & TV	Philips (+5v)	Zenith Bed #1
146	Pillow & TV	Philips (+5v)	Zenith Bed #2
161	Pillow & TV	RCA (-5v)	Zenith Bed #1
162	Pillow & TV	RCA (-5v)	Zenith Bed #2
254	TV Only	0v	Zenith Bed #2

When Hospital Mode is enabled, channel banks are also available. Refer to channel banks information in this document for further details. Channel banks are not supported if Hospital Mode is set to 0 or on TVs that are configured for FTG Mode operation.

When Hospital Mode is set to 0 (disabled), both the IR code that will control the TV and the speaker selection depend on the Installer Menu item 020 FEATURE LEVEL setting.

Note: The default setting (254) is not selectable in the Installer Menu. If you ever need to restore the default setting, you must set item 117 FACT DEFAULT to 1 to reload the factory default settings. See item 117 description for further information.

Note: In the Installer Menu, an informational code is displayed at the right of each Hospital Mode value. Each code consists of three characters. The first character—T, P, or B—identifies the speaker: TV, Pillow, or Both. The second character—Z, P, R, or D—identifies the pillow speaker code: Zenith, Philips, RCA, or Disabled. The third character—1 or 2—identifies the bed number.

028 - CH. OVERIDE (Channel Override)
If set to 1, the user can select channels with either Channel Up/Down or by direct keypad entry. If set to 0, only those channels that are active in the TV's memory can be selected.

029 - OLD OCV (On Command Video™)
Set to 1 for operation with systems from On Command Corporation.

030 - ACK MASK
MPI Communication Parameter. When set to 1, enables ACK feature of MPI.

031 - POLL RATE
MPI Communication Parameter. Selects poll rate for MPI. Step size of 16 ms. Changing from default may affect communication via MPI.

032 - TIMING PULSE
MPI Communication Parameter. Sets baud rate for MPI. Step size of 4.3 uS. Changing from default may affect communication via MPI.

035 - COMPPORT EN. (Computer Port Enable)
Set to 1 to enable display panel HDMI 1 input. Set to 0 to disable display panel HDMI 1 input.

039 - REAR AUX EN. (Rear Aux Enable)
Set to 1 to enable display panel rear Aux (Video 1) input. Set to 0 to disable display panel rear Aux (Video 1) input.

046 - STRT AUX SRCE (Start Aux Source)
Sets the starting Aux source. When turned ON, the TV will tune to starting Aux source if item 004 STRT CHANNEL is set to 0.

1 = Video 1
3 = HDMI 1
4 = RGB
5 = HDMI 2
255 = Last Aux

Note: Above is applicable only if all Aux sources are enabled.

Note: This item is not available in the Installer Menu unless item 004 STRT CHANNEL is set to 0.

047 - AUX STATUS
Set to 1 for MPI Aux source to be reported as a channel number instead of channel 0. Set to 0 to disable Aux identification change. Controls MPI status channel response for Aux inputs.

053 - DIS. CH-TIME (Disable Channel-Time)
Set to 1 to disable the Channel-Time display; Channel-Time display will not appear. Set to 0 to enable the Channel-Time display.

069 - EN. CH-T COL. (Enable Channel-Time Custom Color)
Set to 1 to enable custom color for the Channel-Time display. Set to 0 to disable custom color for the Channel-Time display.

070 - FOR. CH-TIME (Channel-Time Display Foreground Color)
Set according to Color Chart:

0 = Black
1 = Blue
2 = Green
3 = Cyan
4 = Red
5 = Violet
6 = Yellow
7 = White

Note: If foreground color and background color are the same, the menu background will be transparent.

Note: Applies only to "Channel Not Available" message if item 073 CH NOT AVBLE is set to 1 (enabled). Also, items 070 FOR. CH-TIME and 071 BCK. CH-TIME are not available in the Installer Menu when item 069 EN. CH-T COL. is set to 0.

071 - BCK. CH-TIME (Channel-Time Display Background Color)
See description for item 070 FOR. CH-TIME above. The color chart is the same for both items.

073 - CH NOT AVBLE (Channel Not Available)
If set to 1 and item 028 CH. OVERIDE is set to 0, a "NOT AVAILABLE" message is displayed when a user direct tunes a channel that is not in the channel scan list available in memory.

075 - REVERT CH (Revert to Start Channel)
If set to 1 and loss of MPI communication occurs, TV automatically tunes to the specified Start Channel.

Note: This item is not available in the Installer Menu when item 004 STRT CHANNEL is set to 255.

077 - QUICK SHUTOFF
Allows end user (patient) to turn OFF TV using mechanical (analog) Pillow Speaker Channel Up/Down buttons. Patient needs to press and hold either channel button for time determined by value set. Set to 0 to disable. Set from 1 to 17 to establish required hold time of button—from 2 seconds to 10 seconds in half-second increments.

Note: This item is not available in the Installer Menu when item 013 SCAN MODE is set to 0.

078 - UPN MSB (UPN Most Significant Byte)
User programmable number, most significant byte readable by MPI command. Note: Not linked to serial number.

079 - UPN MSB-1 (UPN Most Significant Byte-1)
User programmable number, most significant byte-1 readable by MPI command. Note: Not linked to serial number.

080 - UPN MSB-2 (UPN Most Significant Byte-2)
User programmable number, most significant byte-2 readable by MPI command. Note: Not linked to serial number.

081 - UPN LSB (UPN Least Significant Byte)
User programmable number, least significant byte readable by MPI command. Note: Not linked to serial number.

082 - CHKSM ERROR (Checksum Error)
Enforces rigid MPI checksum validation. Set to 1 for validation. Set to 0 to disable (does not check checksum on MPI async port). SPI is always checked.

083 - HANDSHK TIME (Handshake Time)
Adds an additional delay to the handshake time which is 64 msec, thus relaxing MPI timing requirements to be compatible with PC-based Windows controlled systems. Range is 0 - 5.
(Timeout = 25.5MS + [25.5 MS* Handshake time].)

084 - PERMANENT BLK (Permanent Block)
Allows Lock (Parental Control) blocking schemes to be permanent by disabling the blocking hours function. Set to 1 to install Parental Control restrictions permanently. Set to 0 for user-specified hours control of blocking schemes.

087 - REAR RGB EN. (Rear RGB Enable)
Controls access to rear RGB input on TV. Set to 0 to disable RGB input. Set to 1 to enable RGB input. Set to 17 to initiate a one-time automatic configuration after an AC power cycle; otherwise, automatic adjustment will be performed each time the RGB input is accessed.

088 - EN NOISE MUTE (Enable Noise Mute)
If set to 1, audio mutes when no signal is present.

090 - KEY LOCK
If set to 1, front keyboard Channel, Volume, and Caption buttons are disabled, Power button remains enabled. If set to 0, Channel, Volume, Caption, and Power buttons are all enabled.

091 - YPrPb2 EN. (HDMI2 Enable)
Set to 1 to enable display panel HDMI 2 input. Set to 0 to disable display panel HDMI 2 input.

094 - SAP MENU EN (2nd Audio Program)
Set to 1 to enable SAP feature on Function menu, if Function Menu is available (i.e., the TV is not in Pass-through Mode). Set to 0 to disable SAP feature on Function Menu, if Function Menu is available.

096 - DEF. ASP. RATIO (Default Aspect Ratio)
Selects default aspect ratio at power up.

- Set to 0 for Set By System.
- Set to 1 for 4:3.
- Set to 2 for 16:9 (default).
- Set to 3 for Just Scan.
- Set to 4 for Zoom.

Note: This item is not available in the Installer Menu unless item 106 ASP RATIO LOCK is set to 0.

098 - PRO:CENTRIC
Selects the Pro:Centric Application Mode. Set to 0 (default) to disable Pro:Centric operation. Set to 1 for Flash Mode. Set to 2 for GEM (Java Application) Mode.

Note: This item is not available in the Installer Menu when item 119 DATA CHANNEL is set to 0.

099 - BACK LIGHTING
Sets the TV screen brightness at power up. Default setting is 255.

- 1 - 100 Static Back Lighting
  (1 = Dimmest picture, 100 = Brightest picture)
- 101 - 200 Dynamic Back Lighting
  (101 = Dimmest picture, 200 = Brightest picture)
  The TV automatically controls back lighting depending upon the picture level of the current program.
- 201 Automatic Static Back Lighting
  The TV automatically controls back lighting depending upon external spectral sensitivity.
- 202 Automatic Dynamic Back Lighting
  The TV automatically controls back lighting depending upon external spectral sensitivity and the picture level of the current program.
- If set to 255, back lighting is controlled via the Picture settings in the TV setup menus.

102 - ATSC BAND
Sets up TV to receive different types of incoming signals:
0 = Broadcast, 1 = CATV, 2 = HRC, 3 = IRC, 4 = Same as NTSC.

103 - ATSC TUNE MODE
Sets ATSC tuning mode: Default set to 1 for Physical Channel scan. Set to 0 for Virtual Channel scan.

104 - START MINOR CHANNEL
Sets Minor Start Channel number at power up. 0 = NTSC. If not 0, number selected is the digital channel’s Minor Start Channel number.

Note: This item is not available in the Installer Menu when item 004 STRT CHANNEL is set to 0 or 255.

Installer Menu (Cont.)

106 - ASP RATIO LOCK (Aspect Ratio Lock)
Set to 1 to retain previous aspect ratio with power off. Set to 0 to retain default aspect ratio with power off. See item 096 DEF. ASP. RATIO above.

116 - VIDEO MUTE EN (Video Mute Enable)
Set to 0 for Normal. Set to 1 for Blank.

117 - FACT DEFAULT (Factory Default)
Set to 0 for normal. Set to 1 to load presets of all Installer Menu item settings. Setting this item to 1 will also re-activate the Express Script Installer Menu Wizard (see pages 11 to 14).

Caution: If set to 1, this will reload the factory defaults and clear the channel lineup, including any assigned channel icons and custom text labels.

Note: See also Reference section, "Resetting Factory Defaults on the TV(s)," for further information.

118 - POWER SAVINGS
Default set to 3—the power circuitry for both the embedded *b*-LAN module and the GAME CONTROL/MPI port is only powered when the TV is turned ON. When the TV is in Standby Mode, the embedded b-LAN and the GAME CONTROL/MPI port are not powered.

Note that the TV must be turned ON in order to communicate with the embedded *b*-LAN module for configuration and control when POWER SAVINGS is set to 3. If POWER SAVINGS is set to 1, the *b*-LAN module is always powered.

Similarly, if MPI communication is required for external MPI control, POWER SAVINGS should be set to 1 so that the GAME CONTROL/MPI port circuitry is always powered.

Note: See Reference section, "*b*-LAN Setup & Overview," for further information.

119 - DATA CHANNEL
Set to 0 (default) to disable. Set to the RF channel number of the data channel for Pro:Centric or TV E-Z Installation (splash screen, configuration, and firmware) data.

The TV may take several minutes to load EPG data after AC power is initially applied.

121 - P:C RF WAKE HR
Set the hour from 0 to 23 for Wake On RF. This item uses the 24-hour clock format. The value "128" is displayed as "OFF." Directly entering 128 turns the Wake On RF feature OFF.

Note: This item is not available in the Installer Menu when item 119 DATA CHANNEL is set to 0.

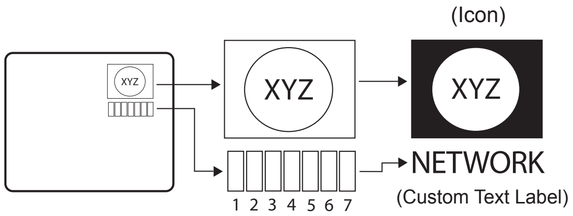
122 - P:C RF WAKE MN
Set the minute from 0 to 59 for Wake On RF.

Note: This item is not available in the Installer Menu when item 119 DATA CHANNEL is set to 0 or when item 121 P:C RF WAKE HR is set to 128/OFF.

Channel Icons / Custom Text Labels (2-5-4 + MENU Mode)

Changing Channel Icons and/or Adding or Editing Custom Text Labels in the Channel-Time Display

If there is no pre-assigned icon for a channel, you can add a custom text label of up to seven (7) characters to help identify the channel or network. Also, if desired, a custom text label can be added to the Channel-Time display in addition to a pre-assigned icon. You may also add text labels for the Aux input sources to clearly identify the devices that are connected to the Aux inputs.



Changing icons and/or adding or editing custom text labels can only be done if there are channels that have been transferred to the TV's PTC either during the Express Script/Custom Master TV Setup (see pages 11 to 14 or pages 15 to 18, respectively) or by cloning (USB memory device / .tll file or clone programmer only).
Note: A blank letter space is available between "Z" and "!".

To perform channel editing/labeling:

1. Enter the TV Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9-8-7-6** + **OK (Enter)**.
2. Press **2-5-4** + **MENU** on the Installer Remote to enter the Channel Label Editing Menu.
3. Change channel icons and/or add or edit custom text labels as described in the procedures below. (You can do this more than once.)
4. To exit the menu when you are done, press **MENU**.

Changing a Channel's Icon on the Master TV

1. Use Channel Up/Down to select the desired channel.
2. Use the Left/Right arrow keys to select the thin letter "**I**" on the Channel-Time display.
3. Use the Up/Down arrow keys to select the icon with which you want to identify the channel. (If you know the icon number, enter the number, and press **OK [Enter]**.)
4. Proceed to add/edit custom text labels, or go to the next channel.

Adding/Editing Channel Labels on the Master TV

1. Use Channel Up/Down to select the desired channel.
2. Press the Left or Right arrow repeatedly until the numbers 1 to 7 appear on the display. The number shows the position of the character that can be changed. Number 1 is the first character, number 2 the second character, etc.
3. Use the Up/Down arrow keys to select the desired character.
4. Proceed to the next number position, or go to the next channel.

Adding/Editing Source Labels on the Master TV

1. Press **BANK** to select the desired Aux input source: AV1, RGB, HDMI1, or HDMI2.
2. Press the Left or Right arrow repeatedly until the numbers 0 to 9 appear on the display. The number shows the position of the character that can be changed.
3. Use the Up/Down arrow keys to select the desired character.
4. Press **BANK** for the next Aux input, or use Channel Up/Down to return to channels.

Installer Remote Control Key Functions for Master TV Channel Label Editing Menu

- **Channel Up/Down**: Tunes to the next channel in scan.
- **Left/Right Arrows**: Select the item to change. If "I" is shown, the icon can be changed. If a number is shown, it indicates the position of the character that can be changed.
- **Up/Down Arrows**: Select the icon or the character to be displayed. Tip: Arrows can be held down for fast scrolling.
- **0 – 9**: Use to enter the index number of the icon, if known.
- **OK (Enter)**: Changes the icon after the icon number has been entered.
- **BANK**: Use to select Aux inputs.
- **MENU**: Exits the editing process.

Channel Banks Setup

Channel Banks Overview

Channel Banks enable institution administrators to create tiered channel programming on patient in-room TVs. Each channel bank may offer a custom channel lineup for a pre-determined fee. LQ630H and CQ610H TVs are configured with four channel banks, i.e., Channel Banks 1, 2, 3, and 4. The top tier generally contains the most programming (premium, etc.), 2nd tier = lesser programming, 3rd tier = basic programming, etc. It is also possible to create an Inactive TV display with Channel Bank 4, so that an “Inactive TV Call Attendant” message appears when the TV is turned ON. In this case, an administrator can then select another channel bank on the patient’s in-room TV depending on the programming tier requested by the patient.

All channels found during Auto Tuning automatically will be “ADDED” to all four channel banks, and the default is for all channels to be active (NORMAL) in Channel Banks 1, 2, 3, and 4.

Note: Channel banks are not supported on TVs that are configured for FTG Mode operation.

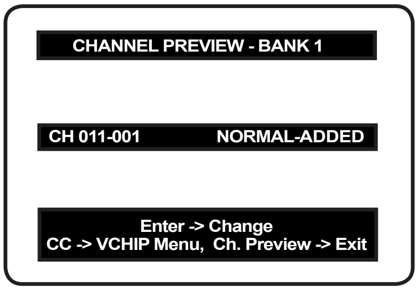
Before You Begin

- Run the Express Script Installer Menu Wizard or complete the Custom Master TV Setup procedure (see pages 11 to 14 or pages 15 to 18, respectively).

  Note: Channel banks can be defined as part of the Express Script Installer Menu Wizard, if desired. However, if you are setting up channel banks after completing the Express Script or if you are creating a customized Master TV Setup, use the Channel Preview/Banks Setup Menu as described below.
- Installer Menu item 028 CH. OVERIDE must be set to 001 to allow access for channel banks setup.

Accessing the Channel Preview/Banks Setup Menu

1. To select a channel bank, press **BANK** on the Installer Remote. The first time you press the BANK key, the TV display will show the currently active channel bank. Press **BANK** repeatedly until the desired channel bank is selected.
2. After the desired channel bank is selected, press **CH PREVIEW** on the Installer Remote to display the Channel Preview/Banks Setup Menu (see below).



CHANNEL PREVIEW - BANK 1

CH 011-001 NORMAL-ADDED

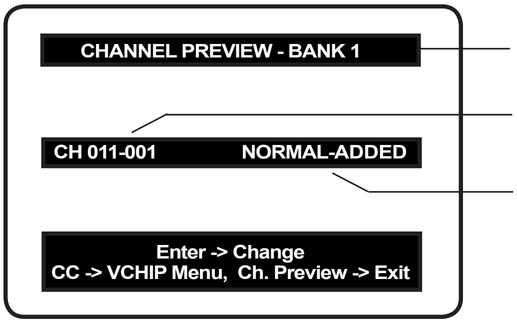
Enter -> Change
CC -> VCHIP Menu, Ch. Preview -> Exit

Typical Channel Preview/Banks Setup Menu

Note: In the Installer Menu, all available Aux inputs are enabled by default. The Aux inputs will appear between the highest analog and lowest digital channel number in the channel lineup when Channel Up/Down is used on the Installer Remote. If an Aux input will not be used, it is advisable to disable it. If using the Express Script, customize the Aux inputs as appropriate in the Aux Input screen (step 2) of the Installer Menu Wizard before completing the Express Script. If performing the Custom Master TV Setup procedure, refer to Installer Menu items 035, 039, 087, and 091 before performing the 2-5-5 + MENU operation (step 4). After the TV setup is transferred to the PTC, the only way to remove Aux inputs from the channel lineup, is to go to the Channel Preview/Banks Setup Menu and select NORMAL-DELETED.

Channel Status Options for Channel Banks

In the Channel Preview/Banks Setup Menu, use the Channel Up/Down arrows on the Installer Remote to navigate to a channel and the Left/Right arrows to select the channel status.



CHANNEL PREVIEW - BANK 1

CH 011-001 NORMAL-ADDED

Enter -> Change
CC -> VCHIP Menu, Ch. Preview -> Exit

IDs currently selected channel bank.

IDs currently selected channel.

IDs channel status in selected bank.

Typical Channel Preview/Banks Setup Menu

Channel Status Options

- NORMAL-ADDED: Channel will appear in channel lineup.
- NORMAL-DELETED: Channel will not appear in channel lineup.
- BLANK-ADDED: Channel will appear in all channel banks; however, video will be black, no picture.
- BLANK-DELETED: Channel will be blanked in all channel banks.

Adding / Deleting / Blanking Channels

It is best to complete ADD / DELETE customization before assigning BLANK status. All channels found during Auto Tuning are automatically assigned NORMAL-ADDED status in Channel Banks 1, 2, 3, and 4. NORMAL-ADDED and NORMAL-DELETED status can be assigned independently for Channel Banks 1, 2, 3, and 4. However, a channel blanked, is blanked in all channel banks.

Note: Auto Tuning removes any channels previously customized with ADD / DELETE / BLANK.

Note: On individual TVs, if a channel was not found during Auto Tuning (and was not added during Express Script/Custom Master TV Setup procedures), it can be added using the Manual Tuning option in the Channel Menu.

Selecting Deleted Channels

To tune to a NORMAL-DELETED channel:

1. Select a channel bank where the channel’s status is NORMAL-ADDED.
2. Navigate to or direct enter the channel number.
3. Select the channel bank where the channel’s status is “NORMAL-DELETED,” and reconfigure the channel status in the Channel Preview/Banks Setup Menu.

Inactive TV Setup

There are two options for creating an inactive TV display on Channel Bank 4. Either:

- Select **NORMAL-DELETED** for each channel in Channel Bank 4, or
- Press **BANK** on the Installer Remote until Channel Bank 4 is selected, and then press **CH PREVIEW** to display the Channel Preview/Banks Setup Menu. Then, press the **SAP** key on the Installer Remote to automatically delete all channels in Channel Bank 4.

When the TV is turned ON by the patient, an “Inactive TV Call Attendant” message will appear on the screen, and after a few moments the TV will turn itself OFF. This will prompt the patient to arrange for an available programming package on Channel Bank 1, 2, or 3. Using the Installer Remote, the administrator can select Channel Bank 1, 2, or 3 depending on the entertainment programming tier selected by the patient. When the patient leaves the hospital, the administrator can then select Channel Bank 4 to reinstate the “Inactive TV” message.

Channel Banks Setup (Cont.)

Channel Banks Worksheets

Use Channel Banks Worksheets (see following page) to create channel status charts as part of the setup process. On the channel status charts, show the status for each channel in all channel banks. This then becomes the patient entertainment programming offerings plan.

The following examples show “before-and-after-customization” portions of channel status charts with analog channels, Aux inputs, and digital channels.

Example: Channel Banks After Auto Tuning

BANK	2	5	7	AVI1	RGB	HDM1	4-1	6-1	13-1	20-5	20-6	30-1	32-1	40-1	40-11	44-1	44-11	45-1	45-11
1	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
3	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
4	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

A = Active (channel found during Auto Tuning and automatically assigned NORMAL-ADDED status)

Example: Channel Banks After Auto Tuning and Customization with Add/Del/Blnk Options

BANK	2	5	7	AVI1	RGB	HDM1	4-1	6-1	13-1	20-5	20-6	30-1	32-1	40-1	40-11	44-1	44-11	45-1	45-11
1	BC	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2	BC	A	A	A	A	A	A	D	D	A	A	A	A	A	A	D	D	D	D
3	BC	D	D	A	D	A	A	D	D	A	A	A	A	D	D	D	D	D	D
4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

A = Active (channel found during Auto Tuning and retains NORMAL-ADDED status)
D = Delete (channel assigned NORMAL-DELETED status in the Channel Preview/Banks Setup Menu)
BC = Blanked Channel (channel blanked using the BLANK channel option in the Channel Preview/Banks Setup Menu)

Channel Banks Worksheet

Use this worksheet to plan your program packages. (Photocopy additional worksheets as needed.)

B A N K	Channel Number																											
1																												
2																												
3																												
4																												

B A N K	Channel Number																											
1																												
2																												
3																												
4																												

B A N K	Channel Number																											
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B A N K	Channel Number																												
1																													
2																													
3																													
4																													

Date ______________ Installer ____ Page ___ of ____

Location ____

Cloning Overview

IMPORTANT CLONING INFORMATION

There are four different procedures for cloning a Master TV Setup (including a TV that has been set up using the Express Script Installer Menu Wizard), each with its own advantages and limitations (see also "Cloning Methods" on page 15):

- Using a USB memory device / .tlx file
- Using a USB memory device / .tll file
- Using a TLL-1100A clone programmer
- Using a LT2002 clone programmer

Each cloning method is described in further detail on the pages that follow. As you perform cloning procedures, be sure to complete each task as indicated. If a procedure or step is omitted or not performed completely, cloning may not work. At each step, pay attention to ensure the TV screen shows the proper message when cloning. If the message indicated does not appear, there is a problem with that step, and cloning may not be successful.

Caution: Copying a blank or incorrect memory into a TV from a clone programmer will cause the TV to operate erratically or become inoperable.

Caution: If the TV is in LodgeNet PPV Mode (check with the site administrator if you are not certain), do not connect a clone programmer to the GAME CONTROL/MPI port, as this will damage the clone programmer.

Before you begin cloning:

- Complete the Custom Master TV Setup procedure or run the Express Script Installer Menu Wizard (see pages 15 to 18 or pages 11 to 14, respectively).
- All equipment should be connected to power and turned ON.
- Both the Master and Target TVs must be in Pass-through Mode.
- Learning and Teaching is only possible between identical model TVs.
- If using a USB memory device, ensure the USB device has been formatted with FAT format.
- If using a USB memory device / .tlx file, ensure that the Master TV Setup does not contain a Channel Map; otherwise, Teaching will result in the Target TV(s) being configured for FTG Mode via CPU.
- For both Master and Target TVs—If using a clone programmer, ensure the TV is tuned to either an Aux input or an analog (not a digital) channel.
- LT2002 only—Make sure the batteries in the clone programmer are fresh. If batteries are removed, the clone programmer clock time (if set) will be lost (see page 40 for information on the clone programmer clock).

Caution: Do not unplug the TV power cord or remove/disconnect the USB memory device/ clone programmer while Learning or Teaching, as doing so may cause the TV to malfunction or harm the USB device/clone programmer, respectively.

Learning / Teaching a Master TV Setup using a USB Memory Device / .tlx File

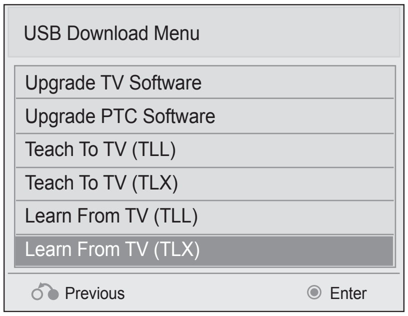
USB Cloning Notes

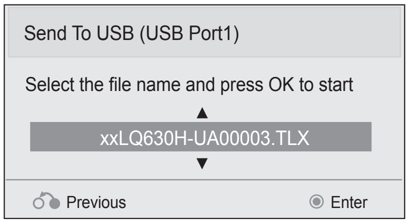
- Read the IMPORTANT CLONING INFORMATION on page 32 before beginning any cloning procedures. In particular, ensure that the Master TV Setup does not contain a Channel Map; otherwise, Teaching will result in the Target TV(s) being configured for FTG Mode via CPU.
- You may edit the filename as part of the Learning procedure; however, a file with edited contents will not be recognized.
- It is not possible to clone a Master TV's clock using a USB memory device. Either set a Target TV's clock manually, or use the Auto Clock setting in the TV setup menus.

Learn Setup from Master TV

1. Ensure the Master TV is set up completely and in Pass-through Mode.
2. Plug the USB memory device into the USB IN port on the Master TV.
3. Press **MENU** on the Installer Remote to display the TV setup menus. Use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number "**7**" key a total of seven times to display the USB Download Menu.
4. To gain access to the "Learn From TV" option in the USB Download Menu, key in the password used to enter the Installer Menu (Example: Press **9**-**8**-**7**-**6**).
5. Use the Up/Down arrow keys to select **Learn From TV (TLX)**, and then press **OK (Enter)**.
6. To differentiate this .tlx file from others, you can use the Up/Down arrow keys to change the last five digits of the filename. Press **OK (Enter)** when you are ready to initiate Learning.

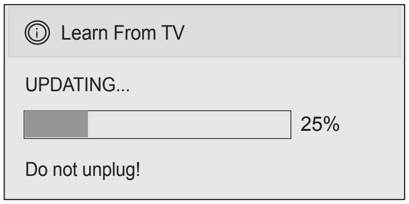
   Learning status will be shown on the progress bar. When the Learning process is complete, the USB Download menu will reappear on screen.
7. When Learning is done, remove the USB memory device from the Master TV.





Select the file name and press OK to start

▲ xxLQ630H-UA00003.TLX ▼



UPDATING...

25%

Do not unplug!

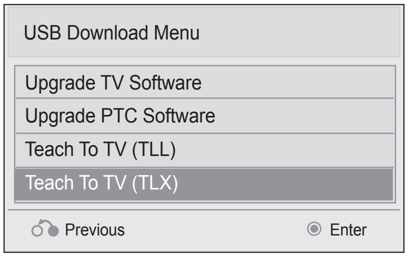
USB Cloning Procedures (Cont.)

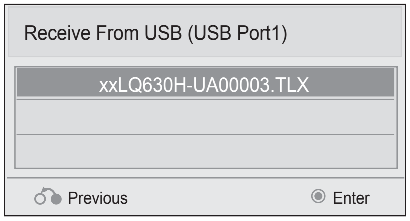
Learning / Teaching a Master TV Setup using a USB Memory Device / .tlx File (Cont.)

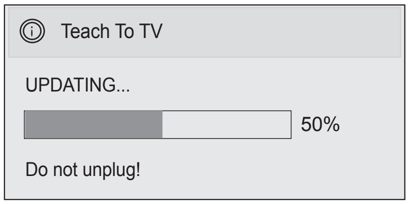
Teach Master TV Setup to Target TV

1. Ensure the Target TV is in Pass-through Mode, and then use the Installer Remote to enter the Target TV Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9-8-7-6** + **OK (Enter)**.
2. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **ENTER**. When the value changes back to 0, press **OK (Enter)** again to exit the Installer Menu.
3. Plug the USB memory device with the .tlx file into the Target TV USB IN port.
4. Press **MENU** on the Installer Remote to display the TV setup menus. Use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number “**7**” key a total of seven times to display the USB Download Menu.
5. Use the Up/Down arrow keys to select **Teach To TV (TLX)**, and then press **OK (Enter)**.
6. Use the Up/Down arrow keys to select the Master TV Setup you want to install, and then press **OK (Enter)**. Note: Filenames identify the TV and the TLX version (see example at right).

   Teaching status will be shown on the progress bar. When the Teaching process is complete, the USB Download menu will reappear on screen.
7. When Teaching is done, remove the USB memory device from the Target TV, turn OFF the TV, and unplug the TV power cord for 15 seconds.
8. Reconnect the TV power cord, and turn ON the TV. The Master TV Setup should be resident on the Target TV.


USB Download Menu
Upgrade TV Software
Upgrade PTC Software
Teach To TV (TLL)
Teach To TV (TLX)
Previous
Enter


Receive From USB (USB Port1)
xxLQ630H-UA00003.TLX
Previous
Enter


Teach To TV
UPDATING...
50%
Do not unplug!

Learning / Teaching a Master TV Setup using a USB Memory Device / .tll File

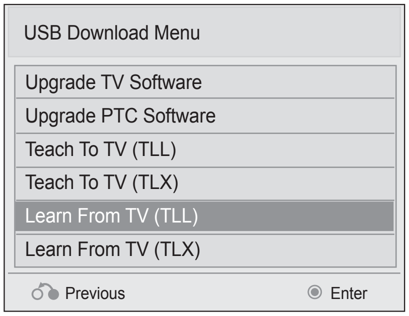
USB Cloning Notes

- Read the IMPORTANT CLONING INFORMATION on page 32 before beginning any cloning procedures.
- You may edit a filename as part of the Learning procedure; however, a file with edited contents will not be recognized.
- It is not possible to clone a Master TV's clock using a USB memory device. Either set a Target TV's clock manually or use the Auto Clock setting in the TV setup menus.

Learn Setup from Master TV

1. Ensure the Master TV is set up completely.
2. Plug the USB memory device into the USB IN port on the Master TV.
3. Press **MENU** on the Installer Remote to display the TV setup menus, use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number "**7**" key a total of seven times to display the USB Download Menu.
4. To gain access to the "Learn From TV" option in the USB Download Menu, key in the password used to enter the Installer Menu (Example: Press **9**-**8**-**7**-**6**).
5. Use the Up/Down arrow keys to select **Learn From TV (TLL)**, and then press **OK (Enter)**.
6. To differentiate this .tll file from others, you can use the Up/Down arrow keys to change the last five digits of the filename. Press **OK (Enter)** when you are ready to initiate Learning.

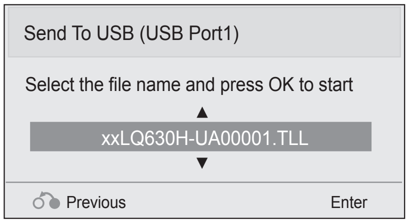
   Learning status will be shown on the progress bar. When the Learning process is complete, the USB Download menu will reappear on screen.
7. When Learning is done, remove the USB memory device from the Master TV.



USB Download Menu

Upgrade TV Software
Upgrade PTC Software
Teach To TV (TLL)
Teach To TV (TLX)
Learn From TV (TLL)
Learn From TV (TLX)

Previous ◉ Enter

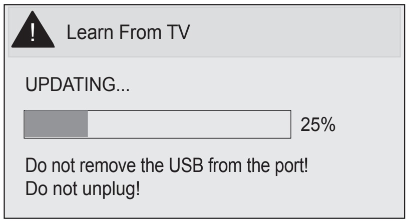


Send To USB (USB Port1)

Select the file name and press OK to start

▲
xxLQ630H-UA00001.TLL
▼

Previous Enter



Learn From TV

UPDATING...

25%

Do not remove the USB from the port!
Do not unplug!

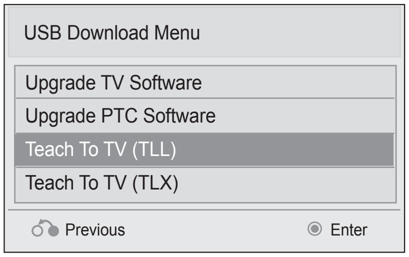
USB Cloning Procedures (Cont.)

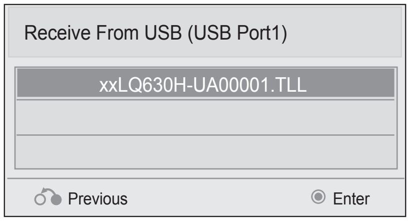
Learning / Teaching a Master TV Setup using a USB Memory Device / .tll File (Cont.)

Teach Master TV Setup to Target TV

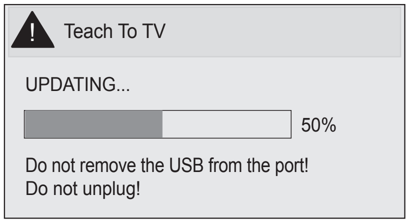
1. On the Target TV, if necessary exit the Express Script Installer Menu Wizard, and then use the Installer Remote to enter the Target TV Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9-8-7-6** + **OK (Enter)**.
2. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **OK (Enter)**. When the value changes back to 0, press **OK (Enter)** again to exit the Installer Menu.
3. Tune/set the TV to an analog or digital channel or Aux input (ideally the same source tuned for 2-5-5 + MENU Mode during the Custom Master TV Setup procedure, if applicable).
4. Plug the USB memory device with the .tll file into the Target TV USB IN port.
5. Press **MENU** on the Installer Remote to display the TV setup menus, use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number “**7**” key a total of seven times to display the USB Download Menu.
6. Use the Up/Down arrow keys to select **Teach To TV (TLL)**, and then press **OK (Enter)**.
7. Use the Up/Down arrow keys to select the Master TV Setup you want to install, and then press **OK (Enter)**. Note: Filenames identify the TV and the TLL version (see example at right).

   Teaching status will be shown on the progress bar. When the Teaching process is complete, the USB Download menu will reappear on screen.
8. When Teaching is done, remove the USB memory device from the Target TV, turn OFF the TV, and unplug the TV power cord for 15 seconds.
9. Reconnect the TV power cord, and turn ON the TV. The Master TV Setup should be resident on the Target TV.





xxLQ630H-UA00001.TLL



UPDATING...

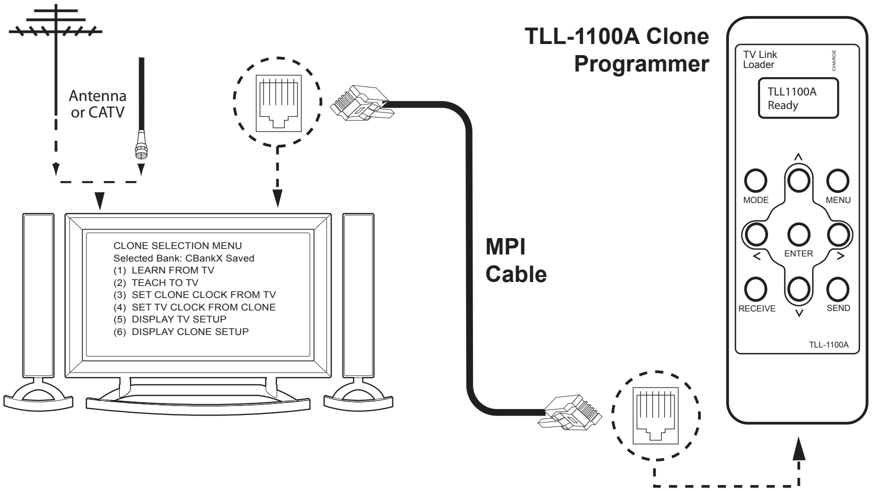
50%

Do not remove the USB from the port!
Do not unplug!

Learning / Teaching a Master TV Setup using a TLL-1100A Clone Programmer

Caution: If the TV is in LodgeNet PPV Mode (check with the site administrator if you are not certain), do not connect a clone programmer to the GAME CONTROL/MPI port, as this will damage the clone programmer.

Cloning is accomplished using the TV/clone programmer MPI ports for communication (see figure).


Antenna or CATV
CLONE SELECTION MENU
Selected Bank: CBankX Saved
(1) LEARN FROM TV
(2) TEACH TO TV
(3) SET CLONE CLOCK FROM TV
(4) SET TV CLOCK FROM CLONE
(5) DISPLAY TV SETUP
(6) DISPLAY CLONE SETUP
TLL-1100A Clone Programmer
MPI Cable
TV Link Loader
CHARGE
TLL1100A Ready
MODE
MENU
ENTER
RECEIVE
SEND
TLL-1100A

TLL-1100A Cloning Notes

- Read the IMPORTANT CLONING INFORMATION on page 32 before beginning any cloning procedures.
- Ensure the TLL-1100A is either fully charged or connected to AC power.
- Learning and Teaching is only possible between identical model TVs; however, the TLL-1100A can store up to eight different Master TV Setups.

Learn Setup from Master TV

1. Ensure the Master TV is set up completely.
2. Tune/set the TV to an analog channel or Aux input, and then plug one end of the MPI cable into the TV MPI port.
3. Turn ON the TLL-1100A.
4. Use the **MODE** button on the TLL-1100A to select **Clone Mode**.
5. Use the Left/Right arrows on the TLL-1100A to select the Memory CBank (1 to 8) in which to store the Master TV Setup.
6. Plug the other end of the MPI cable into the MPI port on the bottom of the TLL-1100A. The Clone Selection Menu will display on the TV screen.
7. Press **1** on the Installer Remote to select **LEARN FROM TV** from the Clone Selection Menu. Then, press **OK (Enter)** to transfer the Master TV Setup into CBankX on the TLL-1100A.

   Learning usually takes about 90 seconds. “LEARNING IN PROGRESS” will be displayed on the screen while the TLL-1100A copies the Master Setup. When the Learning process is complete, a “LEARNING COMPLETE” message will be displayed.
8. When Learning is complete, disconnect the MPI cable from the Master TV.

```
CLONE SELECTION MENU
Selected Bank: CBankX Saved
→ (1)  LEARN FROM TV
(2)  TEACH TO TV
(3)  SET CLONE CLOCK FROM TV
(4)  SET TV CLOCK FROM CLONE
(5)  DISPLAY TV SETUP
(6)  DISPLAY CLONE SETUP

CLONE CLOCK  =  XX:XX
TV       CLOCK  =  XX:XX
THE CLONE IS VERSION VX.X.X
- To change menu items, press
  channel keys or digits.
- To execute item, press Enter.
```

Clone Programmer Cloning Procedures (Cont.)

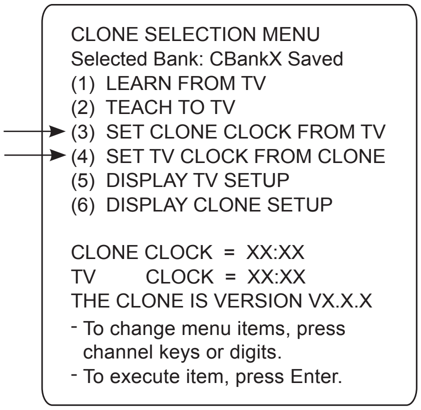
Learning / Teaching a Master TV Setup using a TLL-1100A Clone Programmer (Cont.)

(Optional) Set the Clock

Set the time on a Master TV's clock. (If the time has already been copied from a TV into the TLL-1100A clone programmer, you can set the Master TV's clock by copying the time from the clone programmer.) The TLL-1100A can copy the current time to both a Master TV and to the clone's internal clock—accurate to within one minute.

Since the TLL-1100A's time cannot be set directly, the current time needs to be copied from an LG TV equipped with an enabled MPI port.

After the time is copied to the TLL-1100A clone programmer, the current time will be maintained and can then be transferred to another TV. (This can be a Master TV or another TV which has already had the features set up.)

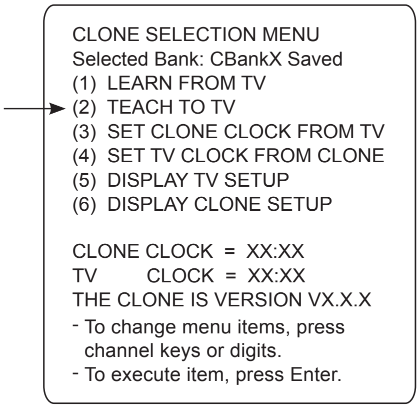


```
CLONE SELECTION MENU
Selected Bank: CBankX Saved
(1)  LEARN FROM TV
(2)  TEACH TO TV
(3)  SET CLONE CLOCK FROM TV
(4)  SET TV CLOCK FROM CLONE
(5)  DISPLAY TV SETUP
(6)  DISPLAY CLONE SETUP

CLONE CLOCK  =  XX:XX
TV        CLOCK  =  XX:XX
THE CLONE IS VERSION VX.X.X
- To change menu items, press
  channel keys or digits.
- To execute item, press Enter.
```

Teach Master TV Setup to Target TV

1. On the Target TV, if necessary exit the Express Script Installer Menu Wizard, and then use the Installer Remote to enter the Target TV Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9-8-7-6** + **OK (Enter)**.
2. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **OK (Enter)**. When the value changes back to 0, press **OK (Enter)** again to exit the Installer Menu.
3. Tune/set the TV to an analog channel or Aux input (ideally the same source tuned for 2-5-5 + MENU Mode during the Custom Master TV Setup procedure, if applicable), and then connect the MPI cable to the MPI port on the Target TV. The Clone Selection Menu will display on the TV screen.
4. Ensure the correct Memory CBank(X) is selected on the TLL-1100A.
5. Press **2** on the Installer Remote to select **TEACH TO TV** from the Clone Selection Menu. Then, press **OK (Enter)** to transfer the Master TV Setup to the Target TV.

   Teaching usually takes 3 to 4 minutes. "TEACHING IN PROGRESS" will be displayed on the screen during Teaching. When the Teaching process is complete, a "TEACHING COMPLETE" message will be displayed.
6. When Teaching is done, disconnect the MPI cable from the Target TV, turn OFF the TV, and unplug the TV power cord for 15 seconds.
7. Reconnect the TV power cord, and turn ON the TV. The Master TV Setup should be resident on the Target TV.



```
CLONE SELECTION MENU
Selected Bank: CBankX Saved
(1)  LEARN FROM TV
(2)  TEACH TO TV
(3)  SET CLONE CLOCK FROM TV
(4)  SET TV CLOCK FROM CLONE
(5)  DISPLAY TV SETUP
(6)  DISPLAY CLONE SETUP

CLONE CLOCK  =  XX:XX
TV        CLOCK  =  XX:XX
THE CLONE IS VERSION VX.X.X
- To change menu items, press
  channel keys or digits.
- To execute item, press Enter.
```

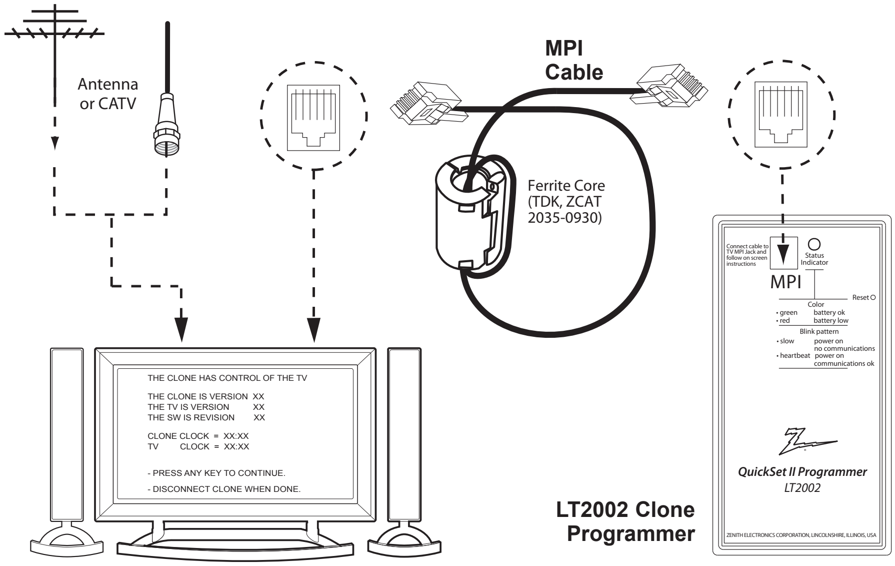
Learning / Teaching a Master TV Setup using an LT2002 Clone Programmer

Caution: If the TV is in LodgeNet PPV Mode (check with the site administrator if you are not certain), do not connect a clone programmer to the GAME CONTROL/MPI port, as this will damage the clone programmer.

Cloning is accomplished using the TV/clone programmer MPI ports for communication (see figure).

LT2002 Cloning Notes

- Read the IMPORTANT CLONING INFORMATION on page 32 before beginning any cloning procedures.
- A slow flashing green light indicates that there are communication problems between the TV and the LT2002. If this is the case, check for a damaged cable, poor contacts, or other connection troubles.
- If the status indicator is red, the LT2002 batteries are low and should be replaced. Install four (4) high-quality alkaline AA batteries.
- Learning and Teaching is only possible between identical model TVs; however, the LT2002 can store up to three different Master TV Setups.

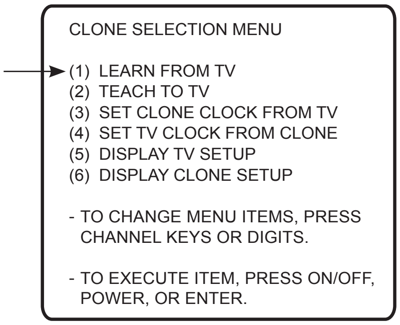

Antenna or CATV
MPI Cable
Ferrite Core (TDK, ZCAT 2035-0930)
Connect cable to TV MPI Jack and follow on screen instructions
MPI
Status Indicator
Reset
Color
• green battery ok
• red battery low
Blink pattern
• slow power on no communications
• heartbeat power on communications ok
QuickSet II Programmer
LT2002
ZENITH ELECTRONICS CORPORATION, LINCOLNSHIRE, ILLINOIS, USA
LT2002 Clone Programmer

```
THE CLONE HAS CONTROL OF THE TV

THE CLONE IS VERSION  XX
THE TV IS VERSION     XX
THE SW IS REVISION    XX

CLONE CLOCK  =  XX:XX
TV     CLOCK  =  XX:XX

- PRESS ANY KEY TO CONTINUE.
- DISCONNECT CLONE WHEN DONE.
```

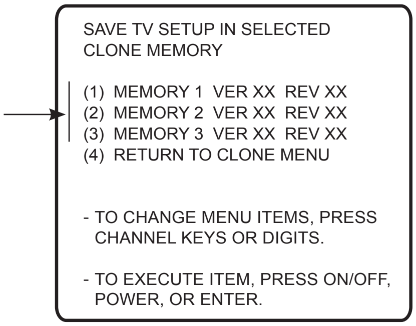
Learn Setup from Master TV

1. Ensure the Master TV is set up completely.
2. Tune/set the TV to an analog channel or Aux input, and then plug one end of the MPI cable into the TV MPI port.
3. If there is a good connection after the LT2002 is connected to the TV MPI port, “THE CLONE HAS CONTROL OF THE TV” message will appear on the TV screen. Press any key on the Installer Remote to access the LT2002 Clone Selection Menu.
4. Press **1** on the Installer Remote to select **LEARN FROM TV** from the Clone Selection Menu; then press **OK (Enter)** to proceed to the Memory Bank Selection Menu.
5. Press 1, 2, or 3 on the Installer Remote to select the clone Memory Bank in which to store the Master Setup. Then, press **OK (Enter)**.

   Note: If you choose a Memory Bank that already has a Master device’s setup programmed into it, that setup will be overwritten by the new Master TV Setup.
6. Verify the Learning setup information on the next screen, and then press **POWER** to transfer the Master TV Setup into the selected Memory Bank on the LT2002.



```
CLONE SELECTION MENU

(1)  LEARN FROM TV
(2)  TEACH TO TV
(3)  SET CLONE CLOCK FROM TV
(4)  SET TV CLOCK FROM CLONE
(5)  DISPLAY TV SETUP
(6)  DISPLAY CLONE SETUP

- TO CHANGE MENU ITEMS, PRESS
  CHANNEL KEYS OR DIGITS.

- TO EXECUTE ITEM, PRESS ON/OFF,
  POWER, OR ENTER.
```



```
SAVE TV SETUP IN SELECTED
CLONE MEMORY

(1)  MEMORY 1  VER XX  REV XX
(2)  MEMORY 2  VER XX  REV XX
(3)  MEMORY 3  VER XX  REV XX
(4)  RETURN TO CLONE MENU

- TO CHANGE MENU ITEMS, PRESS
  CHANNEL KEYS OR DIGITS.

- TO EXECUTE ITEM, PRESS ON/OFF,
  POWER, OR ENTER.
```

(Continued on next page)

Clone Programmer Cloning Procedures (Cont.)

Learning / Teaching a Master TV Setup using an LT2002 Clone Programmer (Cont.)

(Continued from previous page)

Learning usually takes about 90 seconds. “LEARNING IN PROGRESS” will be displayed on the screen while the LT2002 copies the Master Setup. When the Learning process is complete, a “LEARNING COMPLETE” message will be displayed.

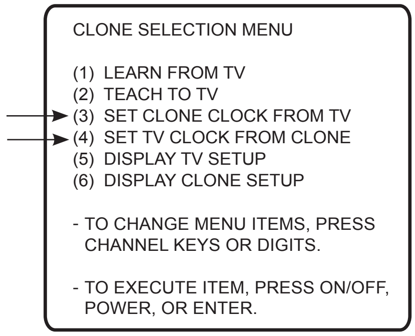
7. When Learning is complete, disconnect the MPI cable from the Master TV.

(Optional) Set the Clock

Set the time on a Master TV’s clock. (If the time has already been copied from a TV into the LT2002 clone programmer, you can set the Master TV’s clock by copying the time from the clone programmer.) The LT2002 can copy the current time to both a Master TV and to the clone’s internal clock—accurate to within one minute. (Another reason that the LT2002 should be equipped with fresh, high-quality alkaline batteries, is for it to keep the time as accurately as possible.)

Since the LT2002’s time cannot be set directly, the current time needs to be copied from an LG TV equipped with an enabled MPI port.

After the time is copied to the LT2002 clone programmer, the current time will be maintained and can then be transferred to another TV. (This can be a Master TV or another TV which has already had the features set up.)



CLONE SELECTION MENU

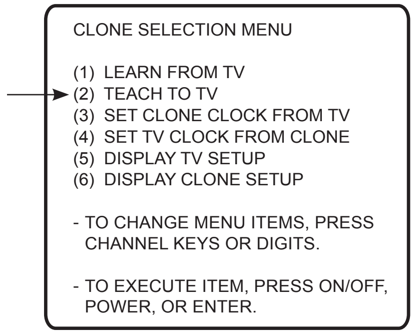
(1) LEARN FROM TV
(2) TEACH TO TV
(3) SET CLONE CLOCK FROM TV
(4) SET TV CLOCK FROM CLONE
(5) DISPLAY TV SETUP
(6) DISPLAY CLONE SETUP

- TO CHANGE MENU ITEMS, PRESS CHANNEL KEYS OR DIGITS.

- TO EXECUTE ITEM, PRESS ON/OFF, POWER, OR ENTER.

Teach Master TV Setup to Target TV

1. On the Target TV, if necessary exit the Express Script Installer Menu Wizard, and then use the Installer Remote to enter the Target TV Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9**-**8**-**7**-**6** + **OK (Enter)**.
2. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **OK (Enter)**. When the value changes back to 0, press **OK (Enter)** again to exit the Installer Menu.
3. Tune/set the TV to an analog channel or Aux input (ideally the same source tuned for 2-5-5 + MENU Mode during the Custom Master TV Setup procedure, if applicable), and then connect the MPI cable to the MPI port on the Target TV.
4. With “THE CLONE HAS CONTROL OF TV” message on display, press **2** on the Installer Remote to select **TEACH TO TV** from the LT2002 Clone Selection Menu. Then, press **OK (Enter)**.



CLONE SELECTION MENU

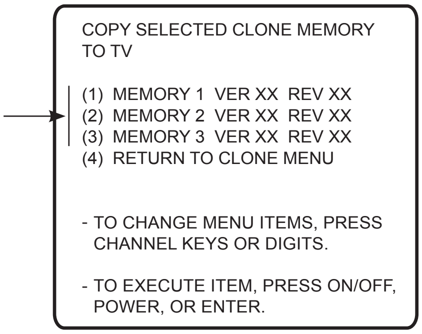
(1) LEARN FROM TV
(2) TEACH TO TV
(3) SET CLONE CLOCK FROM TV
(4) SET TV CLOCK FROM CLONE
(5) DISPLAY TV SETUP
(6) DISPLAY CLONE SETUP

- TO CHANGE MENU ITEMS, PRESS CHANNEL KEYS OR DIGITS.

- TO EXECUTE ITEM, PRESS ON/OFF, POWER, OR ENTER.

5. Select the LT2002 Memory Bank in which the new Master TV Setup is located, and press **OK (Enter)**.
6. Verify the Teaching setup information on the next screen, and then press **POWER** to transfer the Master TV Setup to the Target TV.

   Teaching usually takes 3 to 4 minutes. “TEACHING IN PROGRESS” will be displayed on the screen during Teaching. When the Teaching process is complete, a “TEACHING COMPLETE” message will be displayed.
7. When Teaching is done, disconnect the MPI cable from the Target TV, turn OFF the TV, and unplug the TV power cord for 15 seconds.
8. Reconnect the TV power cord, and turn ON the TV. The Master TV Setup should be resident on the Target TV.



COPY SELECTED CLONE MEMORY TO TV

(1) MEMORY 1 VER XX REV XX
(2) MEMORY 2 VER XX REV XX
(3) MEMORY 3 VER XX REV XX
(4) RETURN TO CLONE MENU

- TO CHANGE MENU ITEMS, PRESS CHANNEL KEYS OR DIGITS.

- TO EXECUTE ITEM, PRESS ON/OFF, POWER, OR ENTER.

FTG Mode via CPU or EBL

FTG Mode enables Pro:Idiom decryption and also allows logical channel mapping of physical channels.

As indicated in the introduction to this document, there are two separate and distinct methods for configuring LQ630H and CQ610H TVs for FTG Mode of operation: one (new) method is to configure the TV CPU for FTG Mode operation, while the other is to configure the TV EBL for FTG Mode operation. FROM A LOCAL CONFIGURATION STANDPOINT, EACH OF THESE METHODS IS MUTUALLY EXCLUSIVE. IF THE CPU IS IN FTG MODE, THE EBL CANNOT BE SWITCHED TO FTG MODE. LIKEWISE, IF THE EBL IS IN FTG MODE, THE CPU CANNOT BE SWITCHED TO FTG MODE.

FTG Mode via CPU

This mode provides the following features:

- Logical channels mapped to RF delivered content.
- Digital RF channel minor (program) numbers up to 999.
- FTG Channel Map of up to 600 logical channels.
- Start Channel set for RF or Aux input delivered content.
- Pro:Centric data delivery over RF.

FTG Mode via CPU requires that you use LG FTG File Manager PC software to create an FTG Configuration (.tlx) file. In this mode, the CPU is the owner of the FTG Channel Map and must be configured with an FTG Channel Map and FTG Installer Menu settings using one of the following processes:

- Local: Configure an individual LQ630H/CQ610H TV via USB port using an FTG Configuration (.tlx) file on a USB memory device. The “Teach to TV (TLX)” process and associated procedures are described on pages 43 to 47.
- Remote: Configure all LQ630H/CQ610H TVs at the site using a Pro:Centric server head end device (Example: PCS150R). Load an FTG Configuration (.tlx) file on the Pro:Centric server using the TV E-Z Installation “Configuration” option in the Pro:Centric Server Admin Client. Refer to the ***Pro:Centric™ Server Admin Client User Guide*** for further information.

FTG Mode via EBL

This mode provides the following features:

- Logical channels mapped to RF delivered content.
- Digital RF channel minor (program) numbers up to 255.
- FTG Channel Map of up to 141 logical channels.
- Start Channel set for RF or Aux input delivered content.
- Pro:Centric data delivery over RF.

FTG Mode via EBL requires LG FTG Device Configuration Application PC software. In this mode, the EBL is the owner of the FTG Channel Map and must be configured with an FTG Channel Map and FTG Installer Menu settings using one of the following processes:

- Local: Configure an individual LQ630H/CQ610H TV’s EBL via its TV-LINK CFG jack using a direct PC-to-TV connection and the FTG Device Configuration Application. The “Write” process for an FTG Channel Map and FTG Installer Menu settings is described on page 48.
- Remote: Configure all LQ630H/CQ610H TV EBLs at the site using a Free-To-Guest Management Appliance (FMA) head end device (Example: FMA-LG101). Refer to the ***Free-To-Guest (FTG) Device Configuration Application User Guide*** and/or the Installation & Configuration Guide for the FMA device for further information.

FTG Mode of Operation Overview (Cont.)

While the TV is in FTG Mode:

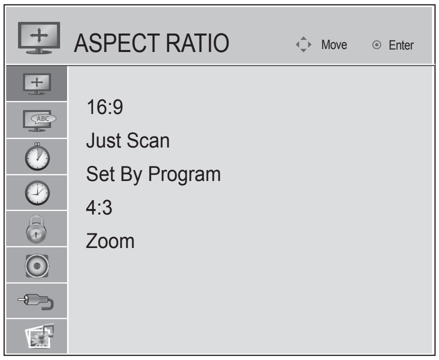
- Users can still access the Installer Menu using an LG Installer Remote; however, all Installer Menu items will be read-only.
- Any FTG configuration changes must be made using either the FTG File Manager (FTG Mode via CPU) or the FTG Device Configuration Application (FTG Mode via EBL). FTG Channel Map Configuration and FTG Installer Menu Configuration Utilities enable you to make changes, respectively, to the FTG Channel Map and FTG Installer Menu settings as necessary. Based on the initial method used to configure the TV for FTG Mode operation (via CPU or EBL), all subsequent changes must be transferred to either the TV CPU or the EBL via a process that is in accordance or compatible with that method (see information on local configuration in this document or refer to documentation for the head end device/server for information on remote management).
- If it becomes necessary to reset the TV to Pass-through Mode, there are several options that will enable you to do so. Refer to Reference section, “Resetting Factory Defaults on the TV(s),” for further information.

Pages 49 to 52 provide overviews of the utilities that comprise the FTG File Manager. Refer to the ***Free-To-Guest (FTG) File Manager User Guide*** for further information on the FTG File Manager. Refer to the ***Free-To-Guest (FTG) Device Configuration Application User Guide*** for information on the FTG Device Configuration Application.

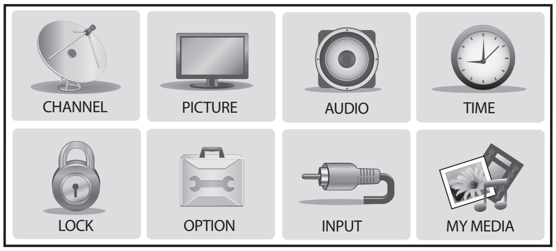
Determining the TV Operating Mode

To determine the operating mode of the TV, press **MENU** on the Installer Remote. The menu displayed depends on the operating mode. See examples below.

If the Function Menu appears, the TV is in a mode (FTG, PPV, etc.) that does not allow the end user to change the fundamental TV setup. If the TV setup menus appear, the TV is in Pass-through Mode.



Function Menu
Indicates the TV is not in Pass-through Mode. While the TV is in this mode, Installer Menu settings can be accessed as read-only.



TV Setup Menus
Shows that the TV is in Pass-through Mode.

Creating an FTG Configuration File using the FTG File Manager

This section describes how to create an FTG Configuration (.tlx) file that can be saved to a USB memory device. In order to enable Pro:Idiom decryption, it is recommended that you create an FTG Configuration file using the FTG File Manager.

Notes:

- FTG File Manager software is available online at: www.LGsolutions.com/ftgsoftware.
- There is also an option to save (Learn) an FTG Configuration file from a TV, which may be desirable or required in either of the following situations:
  - If you want to save customized TV setup menu settings to the FTG Configuration file (in addition to the FTG Channel Map and FTG Installer Menu settings).
  - If you do not know the RF channels at the site.

  See “Learning an FTG Configuration File from a TV” on page 46 for further information. However, if you use this option to save an FTG Configuration file, it is still highly recommended that you open the saved FTG Configuration file in the FTG File Manager to verify the file contents/settings and to enable Pro:Idiom decryption by marking Encrypted channels using the FTG Channel Map Editor.

The procedure below provides an overview of the steps required to create an FTG Configuration (.tlx) file. Refer to the ***Free-To-Guest (FTG) File Manager User Guide*** for further information. See also FTG File Manager sample screens on pages 49 to 52.

1. Install (if necessary) and launch the FTG File Manager (v1.0.0 or higher) on the PC that will be used to create the FTG Configuration (.tlx) file.
2. You have several options at this time:
   - To view and/or base a new FTG Configuration file on an existing FTG Configuration (.tlx) file, click the **Open** button in the TLX File command section of the FTG File Manager main screen, and select the desired (.tlx) file.

     A list of the file’s contents will be displayed in the TLX File Contents window. Either double-click on an individual item to copy it or click the **Copy All** button directly above the TLX File Contents window to automatically copy all the contents of the opened .tlx file to the FTG Configuration List and, if applicable, TV Setup Menu List. Note, though, that while TV setup menu settings can be included in the new FTG Configuration file, the TV setup menu settings are not available for editing.

     Edit the configuration of the items in the FTG Configuration List as well as the FTG Configuration List itself and/or the TV Setup Menu List, as necessary, to create a new file. Then, proceed to step 3 when you are ready to continue.
   - To open an existing FTG Configuration (.rml) file created in the FTG Device Configuration Application to use its FTG Channel Map and/or FTG Installer Menu settings, click **File** and then **Open** from the FTG File Manager menu bar, and select/double-click on the desired “.rml” file.

     Edit channels and/or settings as necessary, and then proceed to step 3 when you are ready to continue.
   - Create a new FTG Channel Map using the FTG Channel Map Editor in the FTG Channel Map Configuration Utility. Up to 600 logical channels can be defined in the FTG Channel Map.

     When you are ready to continue, click **Configure** and then **FTG File Manager** from the FTG File Manager menu bar to return to the FTG File Manager main screen, and then proceed to step 3.

(Continued on next page)

FTG Mode via CPU (Cont.)

(Continued from previous page)

Note: To remove an individual item from the FTG Configuration List or the TV Setup Menu List, click on/highlight the item to be removed, and then click the **Remove Item** button directly above the applicable "List" window. To clear both the current FTG Configuration List and TV Setup Menu List contents, click the **Clear** button in the List command section of the FTG File Manager main screen.

Note: To clear the current TLX File Contents, click the **New** button in the TLX File command section of the FTG File Manager main screen (above the TLX File Contents window).

3. To add an FTG Channel Map to the FTG Configuration List, click >> under FTG Channel Map. This will copy the current mapped channels to the FTG Configuration List.

   Note: If you make any change(s) in the FTG Channel Map Configuration Utility to the current data to be included in the FTG Configuration List, you will need to recopy the FTG Channel Map to the FTG Configuration List.

4. (Optional) Load default FTG Installer Menu settings for the TV:
   - Click the down arrow at the right of the Chassis field in the Installer Menu Templates section of the FTG File Manager main screen, and select the appropriate chassis (22LQ630H or 26/32LQ630H or 42CQ610H) from the drop-down list of available models.
   - Click the **Load** button.
   - Use the FTG Installer Menu Configuration Utility to modify settings, if necessary. Then, return to the FTG File Manager main screen.

5. To add FTG Installer Menu settings to the FTG Configuration List, click >> under FTG Installer Menu Settings. This will copy the selected model's settings to the FTG Configuration List.

   Note: If you make any change(s) in the FTG Installer Menu Configuration Utility to the current data to be included in the FTG Configuration List, you will need to recopy the FTG Installer Menu settings to the FTG Configuration List.

6. Click the **Save** button in the List command section of the FTG File Manager main screen to save the FTG Configuration List and, if present, TV Setup Menu List contents to an FTG Configuration (.tlx) file on the PC's hard drive for later use.

   In the Save As pop-up window, name the file, and click **Save**. The default folder path is C:\Program Files\Zenith\FTG\TLX. Note that the FTG Configuration file will have a ".tlx" extension.

   Note: To remove an individual item from the FTG Configuration List or the TV Setup Menu List before saving the new file, click on/highlight the item to be removed, and then click the **Remove Item** button directly above the applicable window. To clear both the current FTG Configuration List and TV Setup Menu List contents, click the **Clear** button in the List command section of the FTG File Manager main screen.

7. Transfer the FTG Configuration (.tlx) file to a USB memory device, and proceed to "Teaching FTG Configuration to a TV" on the following page to transfer the FTG Configuration file to an LQ630H or CQ610H TV, as applicable.

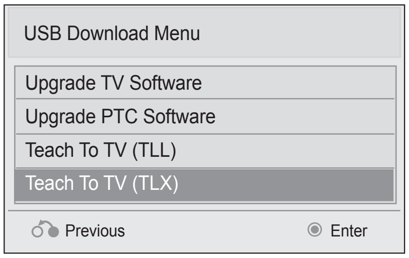
Teaching FTG Configuration to a TV

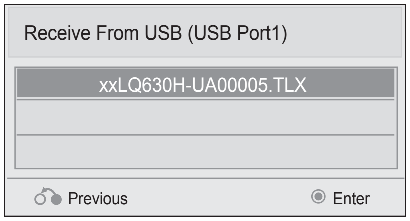
This procedure describes how to "Teach" an FTG Configuration file from a USB memory device to a TV. Ensure you have completed the procedure on the previous page to create the FTG Configuration file before proceeding with the steps below.

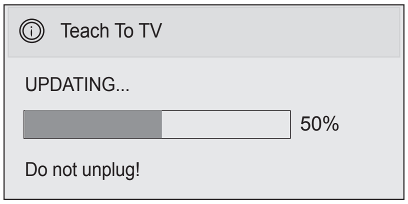
Notes:
- If the TV EBL is already in FTG Mode, you cannot use this procedure to make changes to the FTG Channel Map and FTG Installer Menu settings. You must use a direct PC-to-TV connection as described on page 48 or an FMA head end device to reconfigure the EBL.
- If either of the preceding conditions applies, but you wish to switch the TV to FTG mode via CPU, refer to Reference section, "Resetting Factory Defaults on the TV(s)," for further information before proceeding.

1. Plug the USB memory device that contains the FTG Configuration file into the Target LQ630H or CQ610H TV USB IN port.
2. Press **MENU** on the Installer Remote to display the TV setup menus (TV is in Pass-through Mode) or the Function Menu (TV is already in FTG Mode).
3. Use the arrow navigation keys to select/highlight either the **Option** menu icon from the TV setup menus or the **Lock** menu icon from the Function Menu. Then, press the number "**7**" key a total of seven times to display the USB Download Menu.
4. Use the Up/Down arrow keys to select **Teach To TV (TLX)**, and then press **OK (Enter)**.
5. Use the Up/Down arrow keys to select the FTG Configuration file you want to install, and then press **OK (Enter)**.

   The TV will show Teaching completion progress in a new window. Do NOT remove the USB device until Teaching is complete. When Teaching is complete, the TV will tune to the first logical channel in the FTG Channel Map.
6. When Teaching is done, remove the USB memory device. The FTG Configuration should be resident on the Target TV. Also, the Target TV CPU is now in FTG Mode (if it was previously in Pass-through Mode).







UPDATING...

50%

Do not unplug!

FTG Mode via CPU (Cont.)

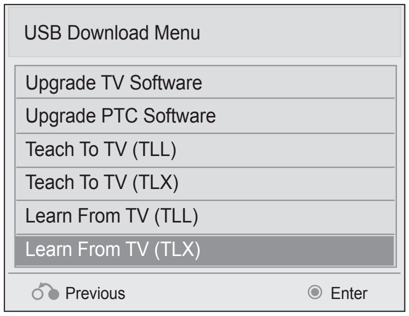
Learning an FTG Configuration File from a TV

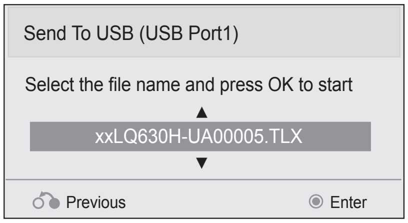
To ensure that Pro:Idiom decryption is enabled, it is recommended that you create an FTG Configuration file using the FTG File Manager as described on pages 43 to 44. However, if necessary, this option enables you to save (Learn) an FTG Configuration file from an LQ630H or CQ610H TV to a USB memory device.

Notes:
- The option to save (Learn) an FTG Configuration file from a TV may be desirable or required in either of the following situations:
  - If you want to save customized TV setup menu settings to the FTG Configuration file (in addition to the FTG Channel Map and FTG Installer Menu settings).
  - If you do not know the RF channels at the site.
- If the TV is NOT already in FTG Mode, you may need to perform some manual configuration on the TV before you start this procedure (see “Optional Manual Configuration / TV Setup” on following page).

1. Plug a USB memory device into the USB IN port on the TV.
2. Press **MENU** on the Installer Remote to display the TV setup menus (TV is in Pass-through Mode) or the Function Menu (TV is already in FTG Mode).
3. Use the arrow navigation keys to select/highlight either the **Option** menu icon from the TV setup menus or the **Lock** menu icon from the Function Menu. Then, press the number “**7**” key a total of seven times to display the USB Download Menu.
4. To gain access to the Learn From TV options in the USB Download Menu, key in the password used to enter the Installer Menu (Example: Press **9-8-7-6**).
5. Use the Up/Down arrow keys to select **Learn From TV (TLX)**, and then press **OK (Enter)**.
6. To differentiate this .tlx file from others, you can use the Up/Down arrow keys to change the last five digits of the filename. Press **OK (Enter)** when you are ready to initiate Learning.

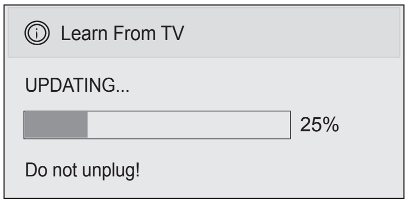
   The TV will show Learning completion progress in a new window. Do NOT remove the USB device until Learning is complete. When Learning is complete, the USB Download Menu will reappear on screen.
7. When you are finished, remove the USB memory device.





Select the file name and press OK to start

xxLQ630H-UA00005.TLX



UPDATING...

25%

Do not unplug!

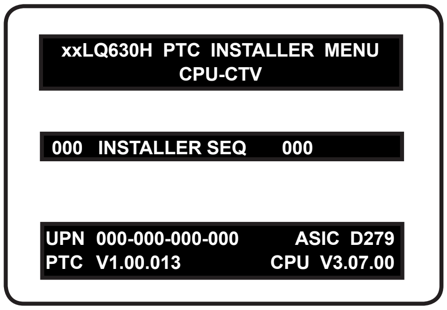
Note: It is highly recommended that you open this FTG Configuration file in the FTG File Manager—BEFORE transferring (Teaching) the file to any TVs—to verify FTG Channel Map and FTG Installer Menu settings and enable Pro:Idiom decryption by marking Encrypted channels. This will also enable you to confirm channels and add channel attributes, labels, etc.

Optional Manual Configuration / TV Setup

The manual configuration procedures below should only be performed if you do not know the RF channels at the site and need to "Learn" an FTG Configuration file from an LQ630H or CQ610H TV as described on the previous page. Ensure the TV is in Pass-through Mode before you begin.

Set Installer Menu Items

These steps provide specific instruction only on the Installer Menu items that should be set on an LQ630H or CQ610H TV. Refer to pages 19 to 26 for detailed information on all Installer Menu items.



xxLQ630H PTC INSTALLER MENU
CPU-CTV

000 INSTALLER SEQ 000

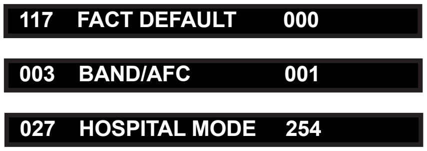
UPN 000-000-000-000 ASIC D279
PTC V1.00.013 CPU V3.07.00

Typical Installer Menu

Note: The Installer Menu header will vary depending on the TV you are setting up.

1. Make sure the TV is ON. Then, use the Installer Remote to enter the Installer Menu: Press **MENU** repeatedly until the on-screen display of the TV setup menus no longer toggles, and then press **9**-**8**-**7**-**6** + **OK (Enter)**.
2. Set Installer Menu item **117 FACT DEFAULT** to **001** and press **OK (Enter)** on the Installer Remote.

   This clears all Installer Menu custom settings, the channel lineup, etc. and reloads the factory default settings. The value will change back to 0 after the commercial controller (PTC) has been restored to factory default condition. This step ensures that the TV Channel Memory will be the active channel lineup.
3. Set Installer Menu item **003 BAND/AFC**, as appropriate.
   - Broadcast: Set to 000.
   - CATV: Set to 001 (default).
   - HRC: Set to 002.
   - IRC: Set to 003.
4. Set Installer Menu item **027 HOSPITAL MODE**, as appropriate, to select the speaker configuration.
5. Set any other Installer Menu items that affect your TV programming network to the required configuration. For example, enable/disable Aux inputs, set a Start Channel, etc.
6. After you have adjusted all Installer Menu item settings as required, press **OK (Enter)** once on the Installer Remote to save your changes; then, press **OK (Enter)** again to exit the menu.



117 FACT DEFAULT 000

003 BAND/AFC 001

027 HOSPITAL MODE 254

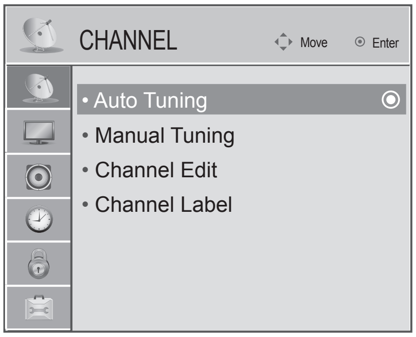
Adjust the values for these Installer Menu items.

Run Auto Tuning (Channel Search)

Note: In the FTG Configuration file, Logical Channel numbers will automatically be assigned in ascending order, starting with 0 (zero), to the Physical Channels from the TV Channel Map.

Note: Pro:Idiom decryption for encrypted channels will not be enabled unless you use the FTG File Manager to set the channel attributes.

1. Search for all available analog and digital channels: Use the Installer Remote to go to the Channel Menu, select the **Auto Tuning** option, and follow the on-screen instructions.
2. Use the **Channel Edit** option in the Channel Menu to edit the channel lineup, as necessary, to include free to guest channels only. Add/delete channels per your system requirements.



Use Channel Menu options to run Auto Tuning and edit the channel lineup, as necessary.

Once you have completed these procedures, return to "Learning an FTG Configuration File from a TV" on the previous page to complete the Learn sequence.

FTG Mode via EBL (Local Configuration)

The following steps outline local FTG configuration of individual TV EBLs using a direct PC-to-TV connection. Refer to the ***Free-To-Guest (FTG) Device Configuration Application User Guide*** for further information.

Notes:
- FTG Device Configuration Application software is available online at: www.LGsolutions.com/ftgsoftware.
- If the TV CPU is already in FTG Mode, you cannot use this procedure to make changes to the FTG Channel Map and FTG Installer Menu settings. Instead, refer to and use the processes described on pages 43 to 45 to reconfigure the TV CPU.
- If the preceding condition applies, but you wish to switch the TV to FTG Mode via EBL, refer to Reference section, “Resetting Factory Defaults on the TV(s),” for further information before proceeding.

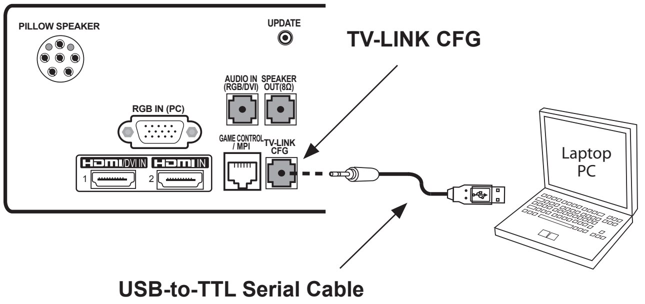
1. Install (if necessary) and launch the FTG Device Configuration Application (v5.0.0 or higher) on the PC that will be used to configure the EBL.
2. Build an FTG Channel Map using the FTG Channel Map Editor in the FTG Channel Map Configuration Utility (or, if applicable, open an existing FTG Configuration [.rml] file).

   Note: Up to 141 logical channels can be defined in the FTG Channel Map.
3. Connect the PC to the TV-LINK CFG jack on the TV’s rear connections panel using a USB-to-TTL serial cable (TTL-232R-5V-AJ). If necessary, install the device driver on the PC.
4. Turn ON the TV.

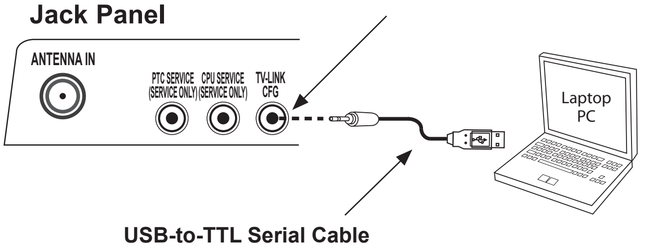
   Note: If Installer Menu item 118 POWER SAVINGS is set to 3 (default), the TV must be ON in order for steps 5 and 6 below to be successful.
5. “Write” the FTG Channel Map to the EBL (switches the EBL from Pass-through Mode to FTG Mode).

   Note: After a “Write” of new data, the TV will briefly display a green text banner that shows the EBL firmware version and release date.
6. “Read” the current FTG Installer Menu settings from the EBL using the FTG Installer Menu Configuration Utility. If necessary to make changes to Installer Menu items, “Write” them back to the EBL in FTG Mode.
7. Save the FTG Channel Map and FTG Installer Menu settings to an FTG Configuration (.rml) file for future use.
8. Tune the TV to a logical channel in the FTG Channel Map.

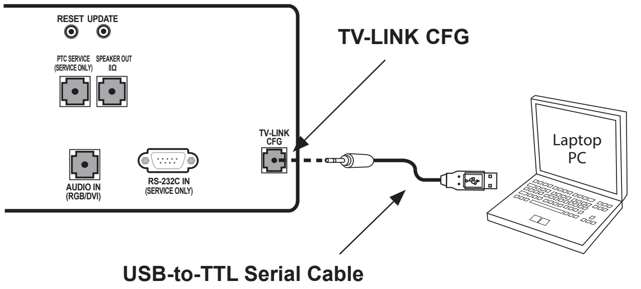
22LQ630H
Jack Panel


PILLOW SPEAKER
UPDATE
TV-LINK CFG
AUDIO IN (RGB/DVI)
SPEAKER OUT(8Ω)
RGB IN (PC)
GAME CONTROL / MPI
TV-LINK CFG
HDMI/DVI IN 1
HDMI IN 2
Laptop PC
USB-to-TTL Serial Cable

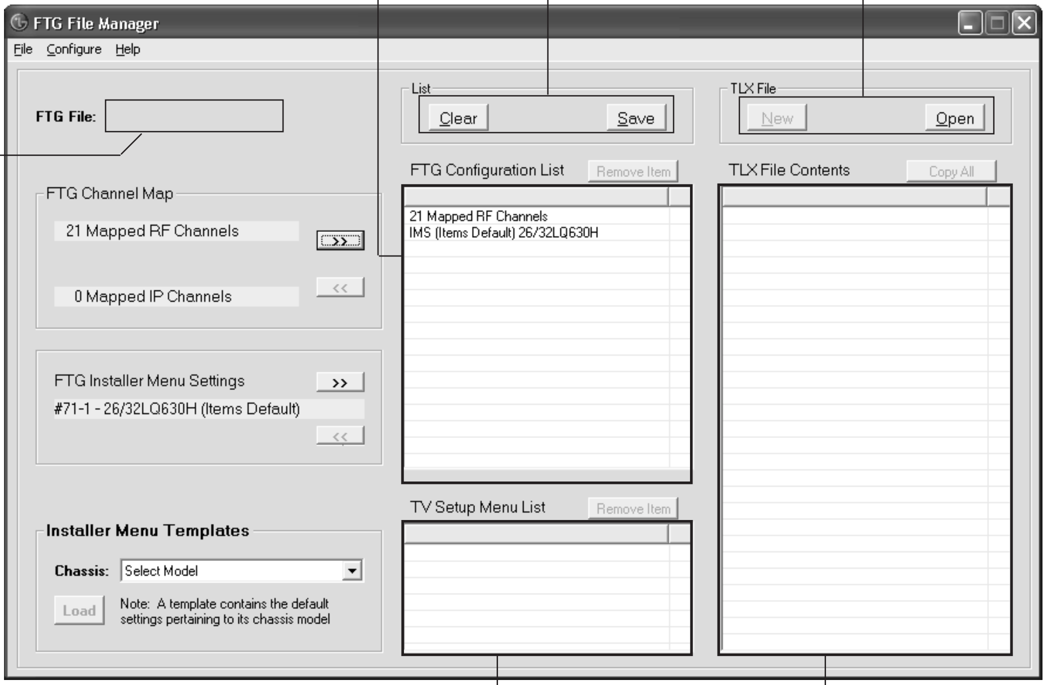
26/32LQ630H
Jack Panel


TV-LINK CFG
ANTENNA IN
PTC SERVICE (SERVICE ONLY)
CPU SERVICE (SERVICE ONLY)
TV-LINK CFG
Laptop PC
USB-to-TTL Serial Cable

42CQ610H
Jack Panel


RESET
UPDATE
TV-LINK CFG
PTC SERVICE (SERVICE ONLY)
SPEAKER OUT 8Ω
TV-LINK CFG
Laptop PC
AUDIO IN (RGB/DVI)
RS-232C IN (SERVICE ONLY)
USB-to-TTL Serial Cable

FTG File Manager Main Screen


FTG File Manager
File
Configure
Help
FTG File:
FTG Channel Map
>>
<<
FTG Installer Menu Settings
>>
<<
Installer Menu Templates
Chassis:
Load
List
Clear
Save
TLX File
New
Open
FTG Configuration List
Remove Item
TLX File Contents
Copy All
TV Setup Menu List
Remove Item

21 Mapped RF Channels

0 Mapped IP Channels

#71-1 - 26/32LQ630H (Items Default)

Chassis: Select Model

Note: A template contains the default settings pertaining to its chassis model

FTG Configuration List:
21 Mapped RF Channels
IMS (Items Default) 26/32LQ630H

FTG CONFIGURATION LIST
Data to be saved in FTG Configuration (.tlx) file.

CLEAR/SAVE
FTG Configuration List options.

NEW/OPEN
TLX File options.

Filename of opened FTG Configuration (.rml) file created using FTG Device Configuration Application.

Copy FTG Channel Map to and from FTG Configuration List.

Copy FTG Installer Menu settings to and from FTG Configuration List.

Load default FTG Installer Menu for appropriate LQ630H chassis or 42CQ610H chassis.

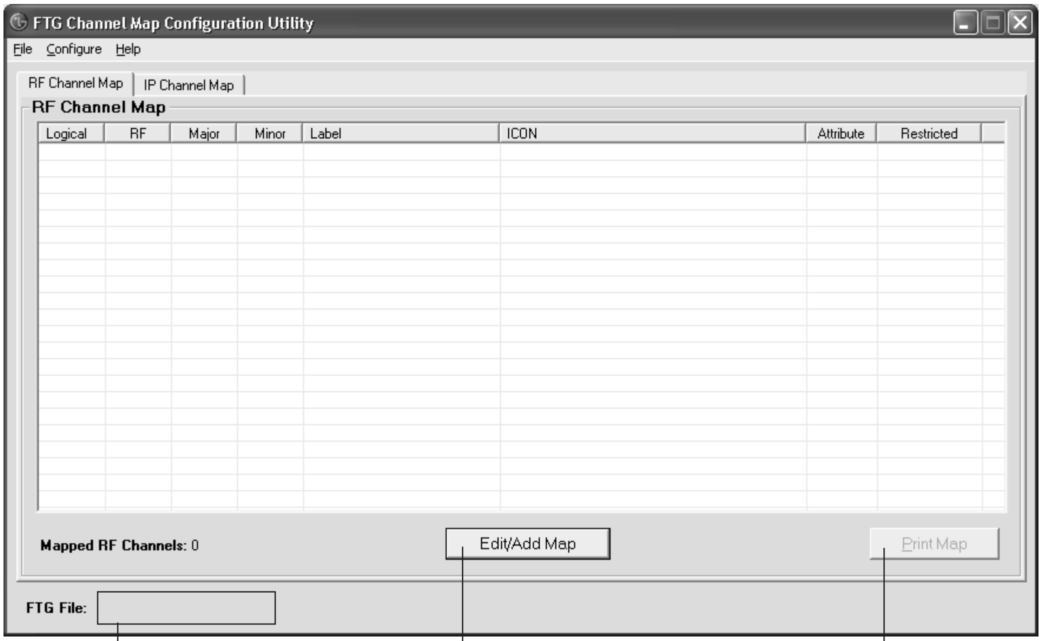
TV SETUP MENU LIST
Data to be saved in FTG Configuration file.

TLX FILE CONTENTS
Data contained in opened FTG Configuration (.tlx) file.

Note: The data referenced in the FTG Configuration List is only a snapshot of the current FTG Channel Map and FTG Installer Menu settings when copied to the list. If you make any change(s) to the current data to be included in the FTG Configuration List, you will need to recopy Channel Map and Installer Menu settings to the FTG Configuration List.

FTG Channel Map Configuration Utility

The FTG Channel Map Configuration Utility enables you to create, view, edit, and print a Logical Channel Map.


FTG Channel Map Configuration Utility
File
Configure
Help
RF Channel Map
IP Channel Map
RF Channel Map
Logical
RF
Major
Minor
Label
ICON
Attribute
Restricted
Mapped RF Channels: 0
Edit/Add Map
Print Map
FTG File:

EDIT/ADD MAP
Click to open the FTG Channel Map Editor to create or edit an FTG Channel Map (see next page).

PRINT MAP
Click to display a printable FTG Channel Map Report. The report can also be exported as an HTML or Text file.

Filename of opened FTG Configuration (.rml) file created using FTG Device Configuration Application.

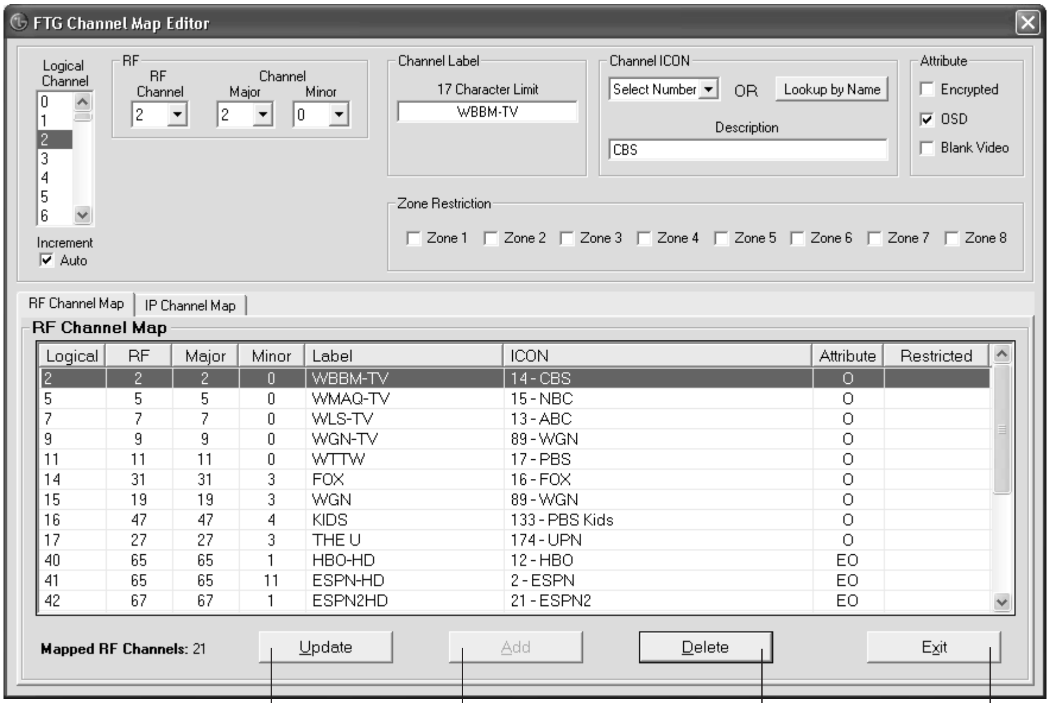
FTG Channel Map Editor

The FTG Channel Map Editor shows a single Logical Channel's data and the FTG Channel Map.

LOGICAL CHANNEL MAPPING
Select a Logical Channel number. Then, assign it the RF, Major, and Minor channel numbers to complete the mapping.

CUSTOM CHANNEL LABELS/ICONS
Enter custom labels and select icons by name on menu or by number.

SET CHANNEL ATTRIBUTES
Check/select Encrypted, OSD, or Blank Video.


FTG Channel Map Editor
Logical Channel
0
1
2
3
4
5
6
Increment
☑ Auto
RF
Channel
OR
Lookup by Name
Attribute
Zone Restriction
☐ Zone 1
☐ Zone 2
☐ Zone 3
☐ Zone 4
☐ Zone 5
☐ Zone 6
☐ Zone 7
☐ Zone 8
RF Channel Map
IP Channel Map
Update
Add
Delete
Exit

RF Channel: 2
Major: 2
Minor: 0

Channel Label
17 Character Limit: WBBM-TV

Channel ICON: Select Number
Description: CBS

☐ Encrypted
☑ OSD
☐ Blank Video

RF Channel Map

Logical	RF	Major	Minor	Label	ICON	Attribute	Restricted
2	2	2	0	WBBM-TV	14 - CBS	O	
5	5	5	0	WMAQ-TV	15 - NBC	O	
7	7	7	0	WLS-TV	13 - ABC	O	
9	9	9	0	WGN-TV	89 - WGN	O	
11	11	11	0	WTTW	17 - PBS	O	
14	31	31	3	FOX	16 - FOX	O	
15	19	19	3	WGN	89 - WGN	O	
16	47	47	4	KIDS	133 - PBS Kids	O	
17	27	27	3	THE U	174 - UPN	O	
40	65	65	1	HBO-HD	12 - HBO	EO	
41	65	65	11	ESPN-HD	2 - ESPN	EO	
42	67	67	1	ESPN2HD	21 - ESPN2	EO	

Mapped RF Channels: 21

ZONE RESTRICTION
Select Zone restriction for channel. See Reference section, "TV Zone Restrictions," for further information.

ADD
After defining a new Logical Channel, click to add channel to the FTG Channel Map.

EXIT
Click to exit editor and return to FTG Channel Map Configuration Utility.

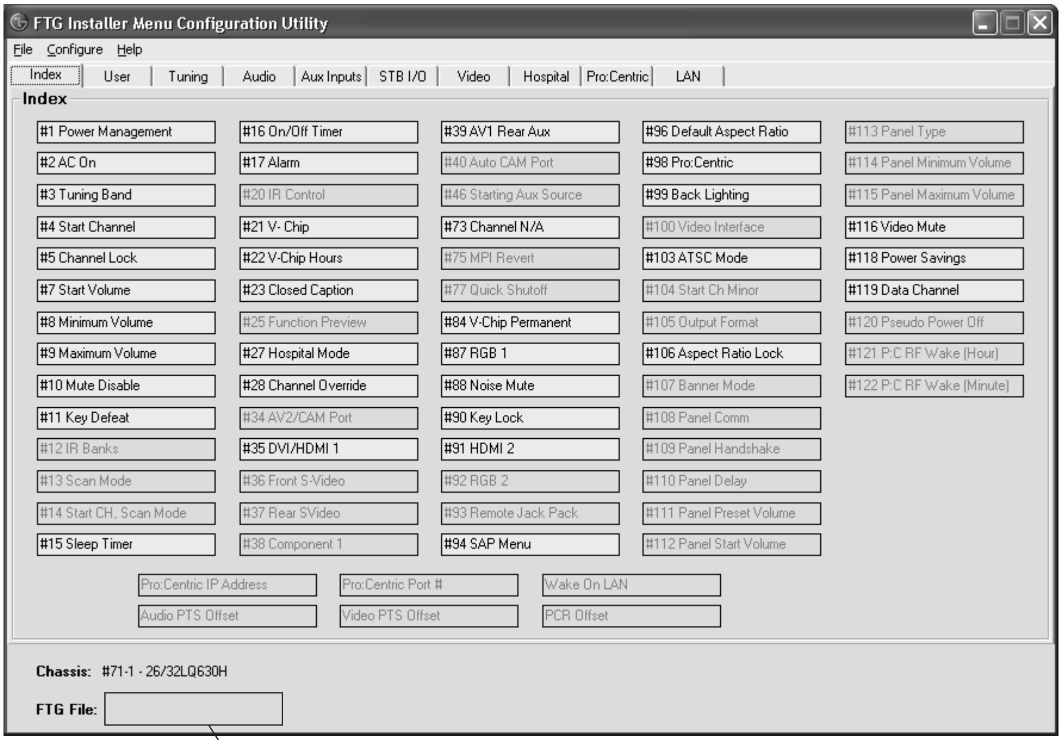
UPDATE
After editing an existing Logical Channel's data, click to commit the changes in the FTG Channel Map.

DELETE
Click to remove highlighted channel from FTG Channel Map.

FTG File Manager Utilities Overview (Cont.)

FTG Installer Menu Configuration Utility

CONFIGURATION SETTINGS
Select tabs for categories of Installer Menu items to set up TV.


FTG Installer Menu Configuration Utility
File
Configure
Help
Index
User
Tuning
Audio
Aux Inputs
STB I/O
Video
Hospital
Pro:Centric
LAN
Index
#1 Power Management
#2 AC On
#3 Tuning Band
#4 Start Channel
#5 Channel Lock
#7 Start Volume
#8 Minimum Volume
#9 Maximum Volume
#10 Mute Disable
#11 Key Defeat
#12 IR Banks
#13 Scan Mode
#14 Start CH, Scan Mode
#15 Sleep Timer
#16 On/Off Timer
#17 Alarm
#20 IR Control
#21 V- Chip
#22 V-Chip Hours
#23 Closed Caption
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#99 Back Lighting
#100 Video Interface
#103 ATSC Mode
#104 Start Ch Minor
#105 Output Format
#106 Aspect Ratio Lock
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#108 Panel Comm
#109 Panel Handshake
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#113 Panel Type
#114 Panel Minimum Volume
#115 Panel Maximum Volume
#116 Video Mute
#118 Power Savings
#119 Data Channel
#120 Pseudo Power Off
#121 P:C RF Wake (Hour)
#122 P:C RF Wake (Minute)
Pro:Centric IP Address
Pro:Centric Port #
Wake On LAN
Audio PTS Offset
Video PTS Offset
PCR Offset

Chassis: #71-1 - 26/32LQ630H

FTG File:

Filename of opened FTG Configuration (.rml) file created using FTG Device Configuration Application.

Note: The Pro:Centric tab enables you to set up Pro:Centric-specific parameters. Refer to the ***Free-To-Guest (FTG) File Manager User Guide*** for further information.

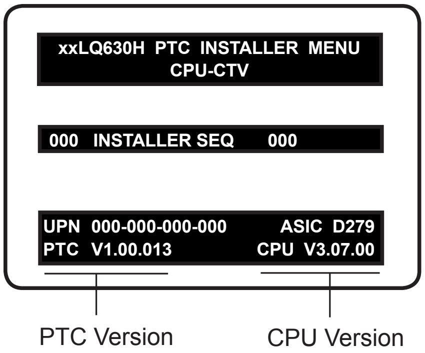
Reference: Upgrading TV/PTC Software using a USB Memory Device

---

Checking the Software Versions

You can check the software versions of the TV by accessing the Installer Menu with the Installer Remote: Press **MENU** repeatedly until the on-screen menu display no longer toggles, and then, press **9-8-7-6** + **OK (Enter)**.

When you are finished, press **OK (Enter)** again to exit the Installer Menu.



xxLQ630H PTC INSTALLER MENU
CPU-CTV

000 INSTALLER SEQ 000

UPN 000-000-000-000 ASIC D279
PTC V1.00.013 CPU V3.07.00

Typical Installer Menu

Upgrading TV/PTC Software

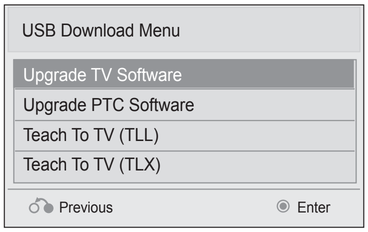
Before you begin, note that the software upgrade files must be stored in a folder named "LG_DTV" in the root directory of the USB memory device. Also, ensure the USB device has been formatted with FAT format.

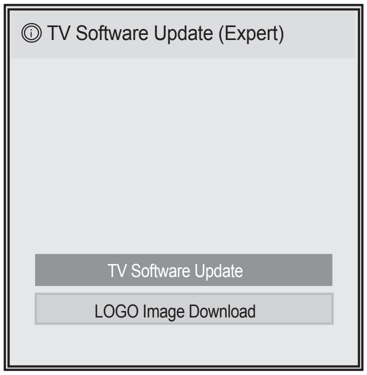
Note for TV Software Upgrade only: If the TV detects a later version of software on the USB device, it will automatically display a dialog from which you can start the software upgrade immediately. Otherwise, you can close the dialog, and access the USB Download Menu as described below.

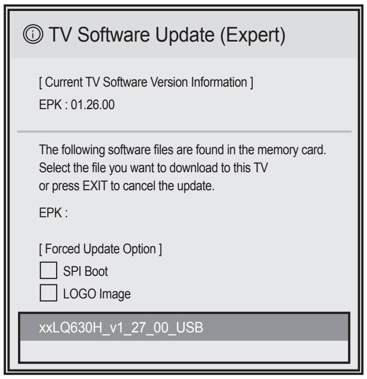
1. Turn the TV ON.
2. Plug the USB memory device into the USB IN port on the TV.
3. Press **MENU** on the Installer Remote to display the TV setup menus (TV is in Pass-through Mode) or the Function Menu (TV is not in Pass-through Mode).
4. Use the arrow navigation keys to select/highlight either the **Option** menu icon from the TV setup menus or the **Lock** menu icon from the Function Menu. Then, press the number "**7**" key a total of seven times to display the USB Download Menu.
5. Use the Up/Down arrow keys to select **Upgrade TV Software** or **Upgrade PTC Software**, as applicable, and then press **OK (Enter)**.
6. Select the appropriate option(s), depending on the type of upgrade:
   - TV Software Upgrade: (See screen samples at right.) Select **TV Software Update** from the first TV Software Update window. In the second TV Software Update window, select/highlight the update file to install and press **OK (Enter)**.

     Note: Do not select Forced Update options unless you have been specifically instructed to do so or have previous experience with Expert Software Updates.
   - PTC Software Upgrade: In the PTC Software Update window, select/highlight the update file to install and press **OK (Enter)**.

     Note: The PTC Software Update window is similar to the second TV Software Update window. Current software version information is shown at the top and update files on the USB device are listed at the bottom of the window.







[Current TV Software Version Information]
EPK : 01.26.00

The following software files are found in the memory card.
Select the file you want to download to this TV
or press EXIT to cancel the update.

EPK :

[Forced Update Option]
☐ SPI Boot
☐ LOGO Image

xxLQ630H_v1_27_00_USB

The TV will show update completion progress in a new window. Do NOT remove the USB device until the software upgrade is complete. When a TV software upgrade is complete, the TV will reset itself with an automatic restart. When a PTC upgrade is complete, the TV will turn OFF.

Reference: Downloading a Splash Screen using a USB Memory Device

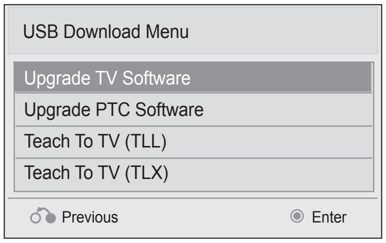
Splash Screen Image File Guidelines

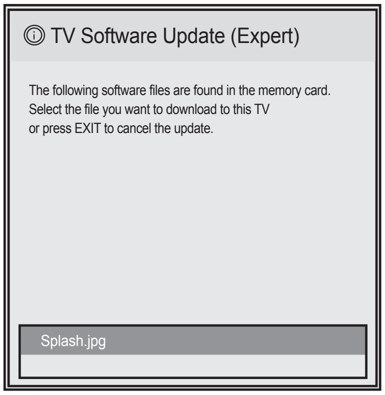
- The splash screen image must be a baseline (not progressive) 24-bit JPEG.
- The image should be no larger than 1 MB.
- The ideal resolution of an image for the 26/32LQ630H is 1366 x 768 pixels (HD) or under and for the 22LQ630H is 1920 x 1080 pixels (FHD) or under.
- The ideal resolution of an image for the 42CQ610H is 1920 x 1080 pixels (FHD) or under.
- The image file must be stored in a folder named “LG_DTV” in the root directory of USB memory device.
- Ensure the USB device has been formatted with FAT format.

Downloading a Splash Screen Image

1. Turn the TV ON.
2. Plug the USB memory device into the USB IN port on the TV.
3. Press **MENU** on the Installer Remote to display the TV setup menus (TV is in Pass-through Mode) or the Function Menu (TV is not in Pass-through Mode).
4. Use the arrow navigation keys to select/highlight either the **Option** menu icon from the TV setup menus or the **Lock** menu icon from the Function Menu; then, press the number “**7**” key a total of seven times to display the USB Download Menu.
5. Use the Up/Down arrow keys to select **Upgrade TV Software**, and then press **OK (Enter)**.
6. Use the Up/Down arrow keys to select the image file to download, and then press **OK (Enter)**.

The TV will show download completion progress in a new window. Do NOT remove the USB device until the image download is complete. When the image download is complete, the TV will reset itself with an automatic restart. Upon the restart, you should see the new splash screen.





The following software files are found in the memory card.
Select the file you want to download to this TV
or press EXIT to cancel the update.

Reference: Power Consumption Settings

The following tables assume that Installer Menu item 118 POWER SAVINGS is set to 3 (default) and Installer Menu item 099 BACK LIGHTING is set as shown below (default value for LQ630H TVs is 255; default value for CQ610H TVs is 100).

Item 099 Back Lighting (Static)	22LQ630H		26LQ630H		32LQ630H		42CQ610H	
	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings
100	23.0	0.0%	35.1	0.0%	50.0	0.0%	111.6	0.0%
90	22.4	3.5%	33.2	5.4%	46.8	6.4%	105.8	5.2%
80	21.6	6.5%	31.5	10.3%	44.0	12.0%	95.0	14.9%
70	21.0	8.7%	29.7	15.4%	40.7	18.6%	89.0	20.3%
60	20.3	11.7%	27.9	20.5%	37.7	24.6%	84.5	24.3%
50	19.5	15.2%	26.2	25.4%	34.6	30.8%	75.0	32.8%
40	18.8	18.3%	24.5	30.2%	31.5	37.0%	67.0	40.0%
30	18.1	21.7%	22.7	35.3%	28.7	42.6%	60.1	46.1%
20	17.4	24.8%	20.9	40.5%	25.5	49.0%	53.1	52.4%
10	16.7	27.4%	19.2	45.3%	22.4	55.2%	45.8	59.0%
1	16.0	30.4%	17.7	49.6%	19.5	61.0%	39.4	64.7%

Item 099 Back Lighting (Dynamic)	22LQ630H		26LQ630H		32LQ630H		42CQ610H	
	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings	Power Consumption (Watts)	Percent Savings
200	22.3	0.0%	34.0	0.0%	47.0	0.0%	107.0	0.0%
190	21.6	3.1%	32.3	5.0%	44.1	6.2%	102.0	4.7%
180	20.9	6.3%	30.6	10.0%	41.7	11.3%	92.0	14.0%
170	20.2	9.4%	29.5	13.2%	38.7	17.7%	87.0	18.7%
160	19.6	12.1%	27.7	18.5%	35.9	23.6%	83.0	22.4%
150	18.9	15.2%	26.1	23.2%	33.0	29.8%	75.0	29.9%
140	18.2	18.4%	24.3	28.5%	30.3	35.5%	67.4	37.0%
130	17.4	22.0%	22.5	33.8%	27.9	40.6%	60.1	43.8%
120	17.1	23.3%	20.8	38.8%	25.2	46.4%	53.2	50.3%
110	16.5	26.0%	19.1	43.8%	22.3	52.6%	45.7	57.3%
101	16.0	28.3%	17.6	48.2%	19.3	58.9%	39.0	63.6%

Note: Values are results of controlled experiments under laboratory conditions.

Reference: TV Aux Input Configuration

DIRECT ACCESS Tuning		TV		ENABLE				MPI DATA			START AUX SOURCE ASSIGN-MENT
				Installer Menu		MPI DATA STATUS TYPE 0x41 SOURCES ENABLED (R/W)		DATA STATUS TYPE 0xD2 CURRENT AV SOURCE (R)		DATA STATUS TYPE 0x0D AUX SOURCE (R)	
OLD_ OCV = 0	OLD_ OCV = 1	Source Input	Source Mode	Number	Labeling	Value	Labeling	Value	Labeling		
131	91	Video1 (Rear)	CV/ SVIDEO	39	REAR AUX EN	0x02	Rear Video (Aux)	1	Rear Video (Aux)	0 (VIDEO)	1
132	92	HDMI2	DTV/PC	91	YPrPb2 EN	0x04	S-Video Rear	2	S-Video Rear	0 (VIDEO)	5
133	93	HDMI1/ DVI	DTV/PC	35	COMPPORT EN	0x08	Front Computer	3	Front Computer	0 (VIDEO)	3
134	94	RGB	PC	87	REAR RGB EN	0x10	SVGA Rear Computer	4	SVGA Rear Computer	2 (COMPUTER)	4

The *b*-LAN module is internal to the TV. It allows hospital/institution head end equipment with *b*-LAN technology to communicate, via the institution's RF distribution system, with the TV for configuration and control.

Installer Menu item 118 POWER SAVINGS controls the power circuitry for both the embedded *b*-LAN module and the GAME CONTROL/MPI port. The default value is 003—the *b*-LAN module as well as the GAME CONTROL/MPI port circuitry is only powered when the TV is turned ON. See chart below.

POWER SAVINGS	**TV Standby State**	**TV Power On State**
	***b*-LAN & GAME CONTROL/MPI Port Power**	***b*-LAN & GAME CONTROL/MPI Port Power**
001	On	On
003 (default)	Off	On

A *b*-LAN enabled head end device, such as an LG FMA-LG101, broadcasts over the RF distribution system to communicate to multiple TVs. When the TV is first installed, it must be turned ON in order for its embedded *b*-LAN module to receive communication from the head end device. At this point, if it is desired for the *b*-LAN module to always be powered, including while the TV is in Standby, set Installer Menu item 118 POWER SAVINGS to 001.

Also, if MPI communication is required for external MPI control, set Installer Menu item 118 POWER SAVINGS to 001 so that the GAME CONTROL/MPI port circuitry is always powered.

Reference: LQ630H/CQ610H Hospital Operations

Hospital Features

The following table identifies when and how the LQ630H and CQ610H hospital features are supported in three different TV configurations. As indicated in the introduction to this document, LG commercial TV functionality is based on “ownership” of the Channel Map. For the purposes of this table, “CPU” indicates that the TV is in Pass-through Mode with the Channel Map in the CPU (i.e., auto-tuned/edited Channel Map) and “PTC” indicates that the TV is in Pass-through Mode with the Channel Map in the PTC (i.e., after 2-5-5 + MENU).

		CPU		**PTC**		**FTG/PPV Mode**	
Hospital Mode State		**Disabled**	**Enabled**	**Disabled**	**Enabled**	**Disabled**	**Enabled**
Installer Menu	Item						
IR Banks Enable	012				X		
Scan Mode	013	(a)	(a)	X	X		
Start Channel in Scan Mode	014			X	X		
Feature Level	020						
Bed 1/Bed 2	020	X		X		X	
Multi-code IR	020	X	X	X	X	X	X
Speaker	020			X		X	
Function Preview	025			X	X		
Hospital Mode	027						
Bed 1/Bed 2	027		X		X		X
Pillow Speaker Voltage	027	(b)	X	(b)	X	(b)	X
Speaker	027	X	X		X		X
Quick Shutoff	077	(c)	(c)	(c)	(c)		
Channel Banks							
Number of Banks Enabled				1	4		
Channel Preview/Banks Setup Menu				X	X		
Blanked Channel				X	X	X	X
Inactive TV					X		
SAP Key					X		
Aux Input Sources							
Input List Menu		X	X	X		X	X
Aux in Scan List				X	X	(d)	(d)
TV Setup Menus							
Audio (TV Speaker)		(e)	(e)	(e)	(e)		
Option (Power Indicator)		X	X	X	X		

X = feature supported

a) Turn ON function only. Always goes to channel 2-0.
b) Defaults to Zenith pillow speaker code/(+12v) supply voltage.
c) Quick Shutoff feature only functions when Scan Mode is enabled and if you are using an analog pillow speaker.
d) Dependent upon installer-defined Logical Channel Map.
e) Audio Menu is only accessible when the speaker selected is TV Only or both TV & Pillow.

Note: Even if Scan Mode is enabled, the front panel channel keys cannot be used to turn ON the TV.

Note: The power indicator on the front panel of the TV has two different settings: one for when the TV is in standby and one for when the TV is turned ON. The Power Indicator option in the Option Menu enables you to define the behavior of the power indicator. For LQ630H TVs, the Standby Light default is OFF, while the Power Light default is ON. Note, however, if an LQ630H TV is in the default Hospital Mode, it is not possible to change the Power Indicator settings. This means that for LQ630H TVs, when Installer Menu Item 027 HOSPITAL MODE is set to 254, the power indicator will retain its default settings regardless of any changes made via the Power Indicator option in the Option Menu. For CQ610H TVs, both the Standby Light and Power Light defaults are ON, and the Power Indicator settings are not affected by the Hospital Mode.

Speaker Selection

The following table outlines speaker settings as determined by Installer Menu items 027 HOSPITAL MODE and 020 FEATURE LEVEL.

Item 027 HOSPITAL MODE Value	Item 020 FEATURE LEVEL Value	Audio Menu TV Speaker	Speaker
0	0 ~ 24	OFF	None
0	0 ~ 24	ON	TV Only
0	64 ~ 65	N/A	Pillow Only
1 ~ 34	N/A	N/A	Pillow Only
65 ~ 98	N/A	OFF	None
65 ~ 98	N/A	ON	TV Only
129 ~ 162	N/A	OFF	Pillow Only
129 ~ 162	N/A	ON	Pillow & TV

Note: If the TV is in FTG Mode, the Audio Menu is no longer accessible.

Reference: Resetting Factory Defaults on the TV(s)

This section describes how to reset factory defaults either on a single TV that is currently in Pass-through or FTG Mode or on multiple TVs that are currently in FTG Mode.

Note: If the TV(s) is/are currently in FTG Mode, restoring the factory defaults also resets the TV to Pass-through Mode.

Installer Menu Item 117 FACT DEFAULT

If the TV is currently in Pass-through Mode, you can set Installer Menu item 117 FACT DEFAULT to 001 to reload the factory defaults and clear the channel lineup, including any assigned channel icons and custom text labels.

Factory “IN-STOP”

If the TV is currently in FTG Mode, a predefined value for Installer Menu item 117 FACT DEFAULT enables access to initiate a factory “IN-STOP” process that will reset the TV to Pass-through Mode in addition to restoring all factory defaults. Contact technical support for the required value for Installer Menu item 117 and for additional information on performing the IN-STOP from the Installer Menu.

Additional FTG Mode via CPU Options

There are two additional options for resetting Pass-through Mode/factory defaults on TVs that are in FTG Mode via the CPU. The first enables you to reset a single TV to Pass-through Mode, while the second enables you to reset multiple TVs to Pass-through Mode at one time.

- Using a USB memory device, “Teach” an FTG Configuration (.tlx) file that only contains a “Zero Mapped Channels” FTG Channel Map to the TV. Refer to “Creating an FTG Configuration File using the FTG File Manager” and “Teaching FTG Configuration to a TV” on pages 43 to 45 for further information.
- If your system uses a Pro:Centric server for remote management/administration, use the Pro:Centric Admin Client to load an FTG Configuration (.tlx) file that only contains a “Zero Mapped Channels” FTG Channel Map on the Pro:Centric server. Refer to the ***Pro:Centric™ Server Admin Client User Guide*** for further information.

Additional FTG Mode via EBL Options

There are two additional options for resetting Pass-through Mode/factory defaults on TVs that are in FTG Mode via the EBL. The first enables you to reset a single TV to Pass-through Mode, while the second enables you to reset multiple TVs to Pass-through Mode at one time.

Note: While the IN-STOP process described above will clear both the PTC and the CPU, both options below only clear the PTC. Thus, the current Channel Map and TV setup menu settings will remain in the CPU after the reset is completed.

- Using a direct PC-to-TV connection, “Write” an unpopulated Channel Map—that is, a Channel Map with zero channels—to the TV. Refer to the “FTG Mode via EBL” procedure on page 48 and/or the ***Free-To-Guest (FTG) Device Configuration Application User Guide*** for further information.
- If your system uses an FMA for remote management/broadcast configuration, configure the FMA device with an FMA Configuration file that only contains a “Zero Mapped Channels” FTG Channel Map to broadcast to the TV EBL(s). Refer to the ***Free-To-Guest (FTG) Device Configuration Application User Guide*** and/or the Installation & Configuration Guide for the FMA device for further information.

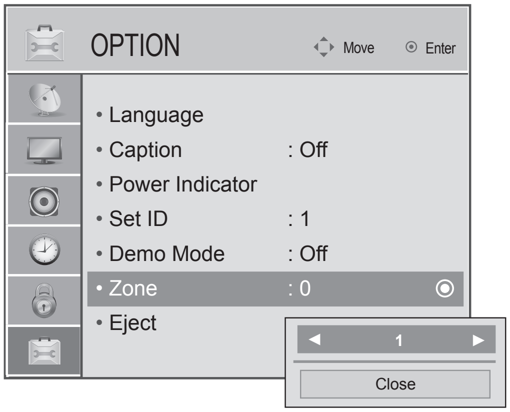
The FTG Channel Map Editor in the FTG File Manager's FTG Channel Map Configuration Utility enables you to assign Zone restrictions to channels that may be deemed unsuitable for certain locations, for example, a hotel lobby. In the FTG Channel Map Editor, a Zone # (for example, "1") must be designated for each channel that is to be restricted.

On location, set the Zone # for all the TVs in a select area, or "Zone" (for example, the lobby) so that the TVs can omit channels that have been restricted in the FTG Channel Map. However, note that while a channel can be restricted from up to eight Zones, a TV can only ever be in (set for) one Zone. TV Zone 0 is the default TV Zone #. When the TV Zone is 0, the TV will ignore any restriction that may be placed on channels in the FTG Channel Map.

See the FTG Channel Map Editor overview on page 51. Also, see the ***Free-To-Guest (FTG) File Manager User Guide*** for more detailed information on assigning Zone restrictions.

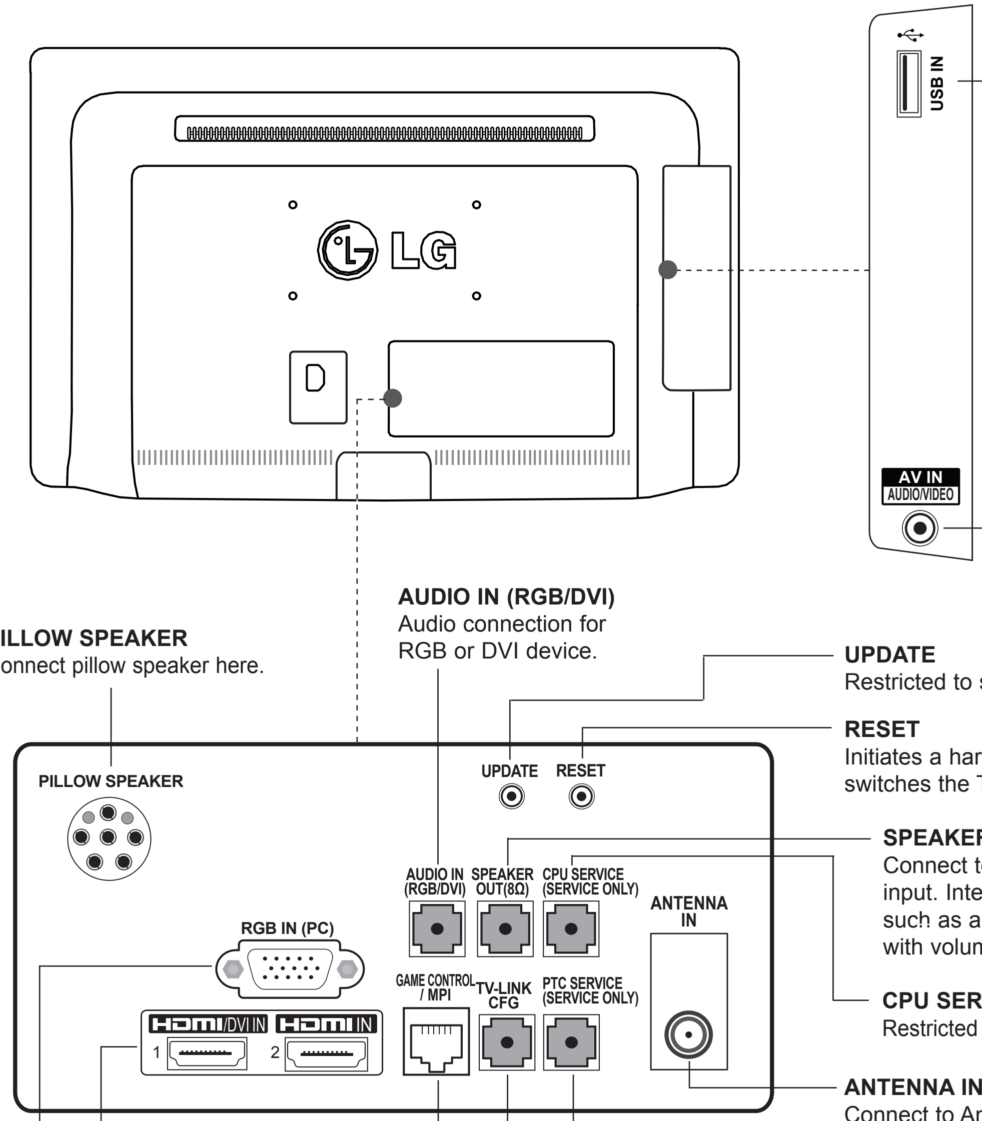
Use the following procedure to specify a Zone designation for a TV. Note that the Zone can only be set while the TV is in Pass-through Mode.

1. Press **MENU** on the Installer Remote, and use the arrow navigation keys to select/highlight the **OPTION** menu option. Then, press **OK (Enter)**.
2. Use the Up/Down arrows to select **Zone**, and then press **OK (Enter)**.
3. In the Zone pop-up window, use the Left/Right arrows to select the appropriate Zone number. Then, press **OK (Enter)**.
4. Press **MENU** to return to TV viewing.



- Language
- Caption : Off
- Power Indicator
- Set ID : 1
- Demo Mode : Off
- Zone : 0
- Eject

Reference: 22LQ630H Rear and Side Jack Panels


USB IN
AV IN
AUDIO/VIDEO
PILLOW SPEAKER
UPDATE
RESET
AUDIO IN (RGB/DVI)
SPEAKER OUT(8Ω)
CPU SERVICE (SERVICE ONLY)
ANTENNA IN
RGB IN (PC)
GAME CONTROL / MPI
TV-LINK CFG
PTC SERVICE (SERVICE ONLY)
HDMI/DVI IN
HDMI IN
1
2

USB IN
Insert USB memory device for software updates, cloning purposes, FTG Mode via CPU configuration, picture/ music entertainment, etc., as applicable.

AUDIO/VIDEO IN
Connect to video/audio output port on external device (use A/V adapter cable provided with TV).

PILLOW SPEAKER
Connect pillow speaker here.

AUDIO IN (RGB/DVI)
Audio connection for RGB or DVI device.

UPDATE
Restricted to software updates.

RESET
Initiates a hardware reset and switches the TV to standby.

SPEAKER OUT (8Ω) *
Connect to 8 ohm self-powered speaker input. Intended for special applications, such as a powered bathroom speaker with volume control.

CPU SERVICE (SERVICE ONLY)
Restricted to CPU service updates.

ANTENNA IN
Connect to Antenna/CATV.

PTC SERVICE (SERVICE ONLY)
Restricted to PTC service updates.

HDMI/DVI IN
Connection for HDMI/ DVI output from external device.

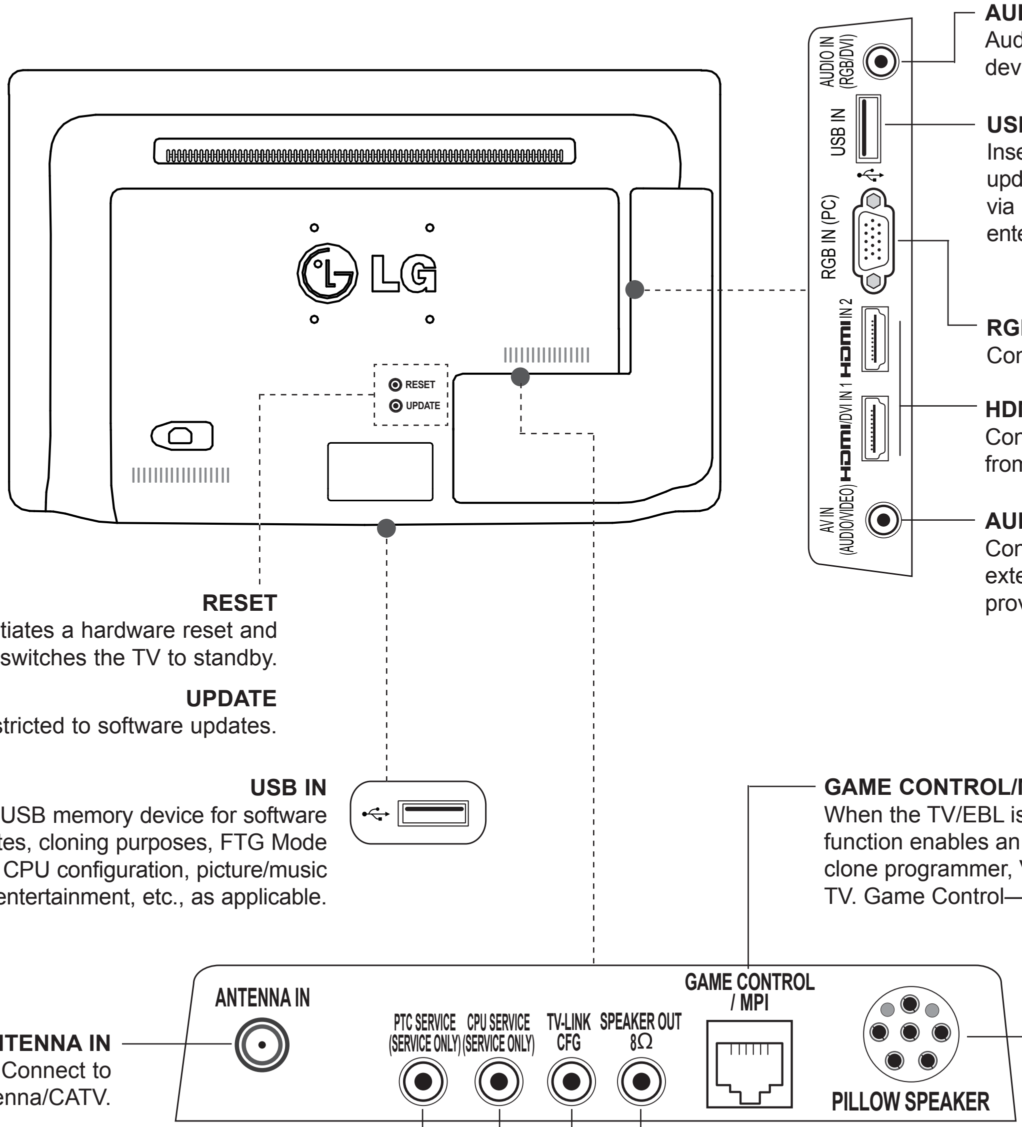
TV-LINK CFG
Use for direct PC-to-TV FTG configuration.

RGB IN (PC)
Connection for RGB output from PC.

GAME CONTROL/MPI
When the TV/EBL is in Pass-through Mode, the MPI function enables an external MPI control device (i.e., clone programmer, VOD/PPV STB, etc.) to control the TV. Game Control—EBL in LodgeNet PPV Mode only.

* This stereo jack provides a mono speaker fixed-level, 1 watt output (audio +, audio -, w/ground shield). Do NOT plug in a mono connector, as this may damage the TV.

Reference: 26/32LQ630H Rear and Side Jack Panels


AUDIO IN (RGB/DVI)
USB IN
RGB IN (PC)
HDMI IN 2
HDMI/DVI IN 1
AV IN (AUDIO/VIDEO)
LG
RESET
UPDATE
ANTENNA IN
PTC SERVICE (SERVICE ONLY)
CPU SERVICE (SERVICE ONLY)
TV-LINK CFG
SPEAKER OUT 8Ω
GAME CONTROL / MPI
PILLOW SPEAKER

AUDIO IN (RGB/DVI)
Audio connection for RGB or DVI device.

USB IN
Insert USB memory device for software updates, cloning purposes, FTG Mode via CPU configuration, picture/music entertainment, etc., as applicable.

RGB IN (PC)
Connection for RGB output from PC.

HDMI/DVI IN
Connection for HDMI/DVI output from external device.

AUDIO/VIDEO IN
Connect to video/audio output port on external device (use A/V adapter cable provided with TV).

RESET
Initiates a hardware reset and switches the TV to standby.

UPDATE
Restricted to software updates.

USB IN
Insert USB memory device for software updates, cloning purposes, FTG Mode via CPU configuration, picture/music entertainment, etc., as applicable.

GAME CONTROL/MPI
When the TV/EBL is in Pass-through Mode, the MPI function enables an external MPI control device (i.e., clone programmer, VOD/PPV STB, etc.) to control the TV. Game Control—EBL in LodgeNet PPV Mode only.

ANTENNA IN
Connect to Antenna/CATV.

PILLOW SPEAKER INPUT
Connect pillow speaker here.

PTC SERVICE (SERVICE ONLY)
Restricted to PTC service updates.

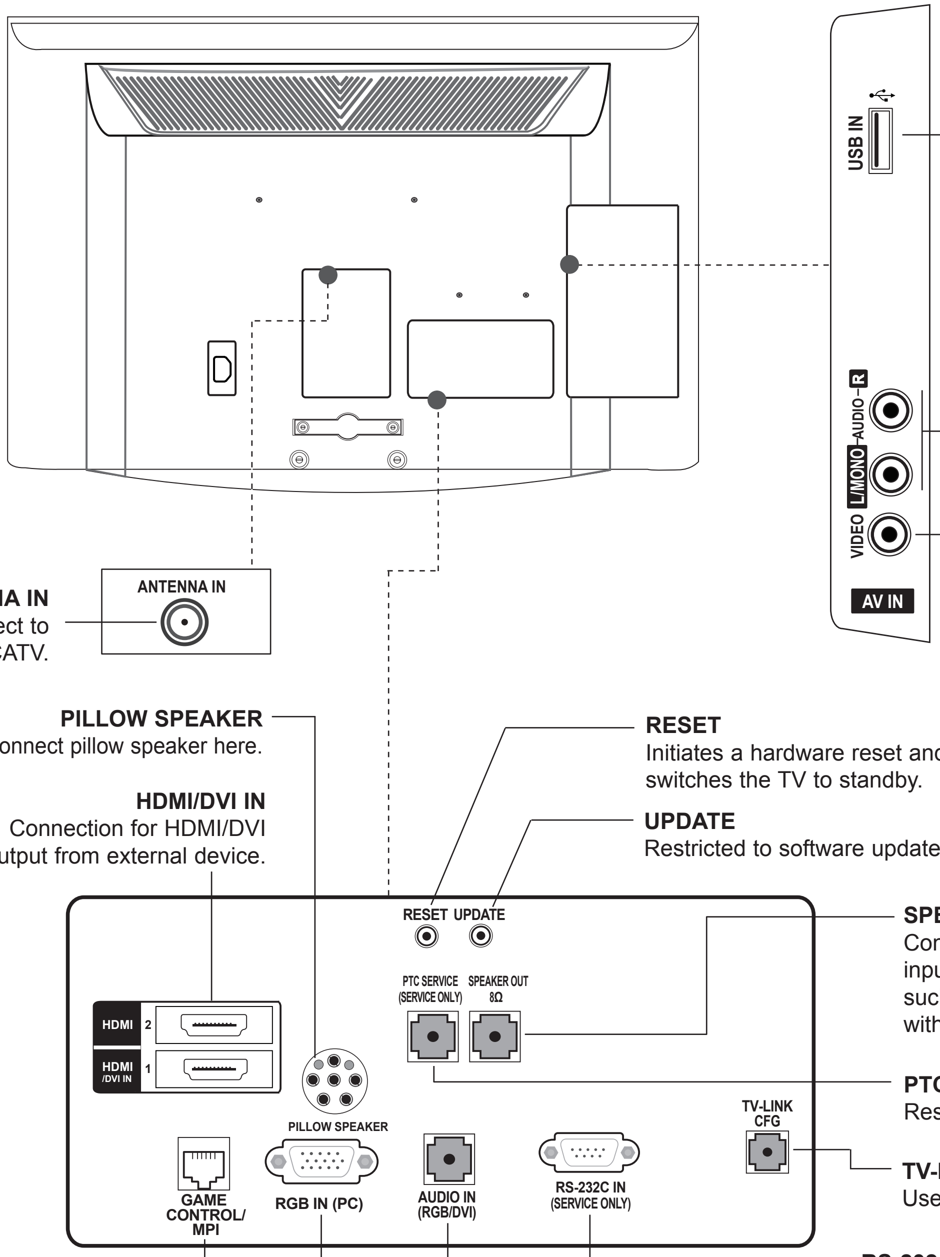
CPU SERVICE (SERVICE ONLY)
Restricted to CPU service updates.

SPEAKER OUT (8Ω) *
Connect to 8 ohm self-powered speaker input. Intended for special applications, such as a powered bathroom speaker with volume control.

TV-LINK CFG
Use for direct PC-to-TV FTG configuration.

* This stereo jack provides a mono speaker fixed-level, 1 watt output (audio +, audio -, w/ground shield). Do NOT plug in a mono connector, as this may damage the TV.

Reference: 42CQ610H Rear and Side Jack Panels


USB IN
AUDIO
R
L/MONO
VIDEO
AV IN
ANTENNA IN
RESET
UPDATE
PTC SERVICE (SERVICE ONLY)
SPEAKER OUT 8Ω
HDMI 2
HDMI /DVI IN 1
PILLOW SPEAKER
TV-LINK CFG
GAME CONTROL/ MPI
RGB IN (PC)
AUDIO IN (RGB/DVI)
RS-232C IN (SERVICE ONLY)

USB IN
Insert USB memory device for software updates, cloning purposes, FTG Mode via CPU configuration, picture/ music entertainment, etc., as applicable.

AUDIO/VIDEO IN

L/MONO-AUDIO-R IN
Connect to audio output jacks on external device.
For only mono audio output, connect to Left audio input.

VIDEO IN
Connect to video output port on external device.

ANTENNA IN
Connect to Antenna/CATV.

PILLOW SPEAKER
Connect pillow speaker here.

HDMI/DVI IN
Connection for HDMI/DVI output from external device.

RESET
Initiates a hardware reset and switches the TV to standby.

UPDATE
Restricted to software updates.

SPEAKER OUT (8Ω) *
Connect to 8 ohm self-powered speaker input. Intended for special applications, such as a powered bathroom speaker with volume control.

PTC SERVICE (SERVICE ONLY)
Restricted to PTC service updates.

TV-LINK CFG
Use for direct PC-to-TV FTG configuration.

RS-232C IN
Use for downloading software updates, etc.

AUDIO IN (RGB/DVI)
Audio connection for RGB or DVI device.

RGB IN (PC)
Connection for RGB output from PC.

GAME CONTROL/MPI
When the TV/EBL is in Pass-through Mode, the MPI function enables an external MPI control device (i.e., clone programmer, VOD/PPV STB, etc.) to control the TV. Game Control—EBL in LodgeNet PPV Mode only.

* This stereo jack provides a mono speaker fixed-level, 1 watt output (audio +, audio -, w/ground shield). Do NOT plug in a mono connector, as this may damage the TV.

Reference: Pillow Speaker Setup

The pillow speaker will only be functional after the Express Script/Custom Master TV Setup and cloning procedures are complete.

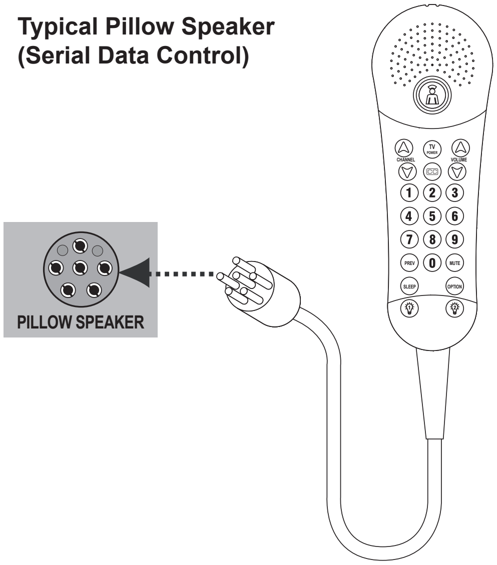
Note: When Installer Menu item 027 HOSPITAL MODE is set to 254 (factory default value), there is no power (voltage) supplied to the pillow speaker.

Connect a Pillow Speaker to the LCD TV

Connect the pillow speaker (see example at right) to the PILLOW SPEAKER interface on the rear jack panel of the TV.

Caution: Use a pillow speaker that is a UL recognized pendant control bearing the warning: “Risk of fire if used in oxygen enriched atmosphere. Keep pendant control away from oxygen equipment.”

Typical Pillow Speaker (Serial Data Control)



Controlling the TV with Serial Data

These TV models are capable of being controlled by a single-wire, serial data signal. This is an LG patented technology and is being implemented by certain brands of “smart” pillow speakers.

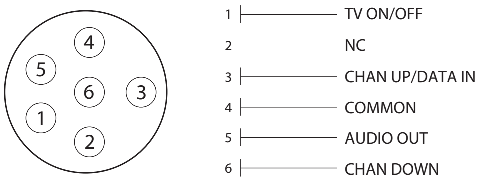
Pillow Speaker Interface

This connector provides an interface for patient-pendant remote control or entertainment audio and nurse call systems. All lines are isolated from the AC power line. (Optoisolators isolate the control lines, and a transformer isolates the audio.) Earth ground is provided on pin 4 (Common) in the default configuration (e.g., for Zenith/Philips pillow speakers). For negative voltage configuration (e.g., for RCA pillow speakers), +5 volts is provided on pin 4 (Common), with pin 3 (Channel Up/Data In) referenced to ground.

The following table describes the pillow speaker interface pinout (see also diagram at right).

Pin No.	Description
1	Analog external control for TV ON/OFF.
2	No connection
3	Analog external control for Channel Up or Serial Data In.
4	Common connection for control, data, and audio output.
5	Isolated Audio Output. Nominal 14 ohm source impedance with short circuit protection. Intended for a pillow speaker with a low-impedance, pad-type volume control.
6	Analog external control for Channel Down.

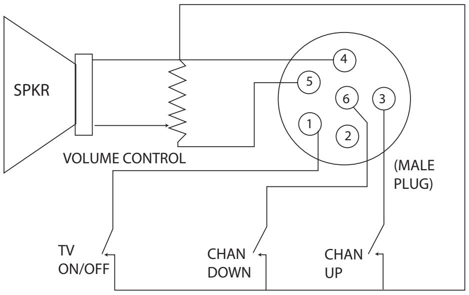
Pillow Speaker Interface Pinout



Controlling the TV with Mechanical Switches

A typical analog pillow speaker with mechanical switches will momentarily connect pin 1, 3, or 6 to pin 4 (Common) to control Power ON/OFF, Channel Up, or Channel Down (see schematic at right). These pins are at +13 volts DC (when measured from pin 4) with the switches open. Typical current draw is 8 mA when a switch is closed. (This operation is identical to previous models using the 5-wire interface, except that only +7 volts DC was supplied and current draw was only 2.5 mA.)

Typical Schematic for Analog Pillow Speaker



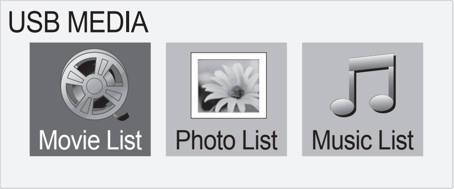
Reference: USB Media Navigation using Pro:Centric Pillow Speaker

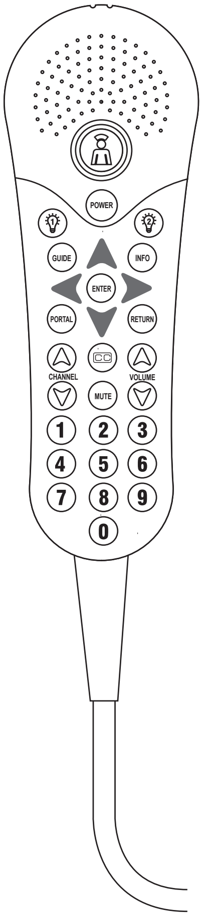
The Pro:Centric pillow speaker is currently the only pillow speaker that enables users to navigate and play/view USB media files (videos, music, photos, etc.). This section provides a brief overview of the Pro:Centric pillow speaker navigation tools.

Note: Refer to the Owner's Manual for detailed information on USB memory device requirements and the types of media supported by the LQ630H and CQ610H TVs.

1. Plug the USB memory device into the TV's USB IN port.

   Once the TV detects the USB device, the Media Menu will be displayed on the TV screen. (The actual menu header shown on the TV screen will reflect the name of your USB device.)





Typical Pro:Centric Pillow Speaker

Note: If you press the Return button on the pillow speaker, this will exit the Media Menu. If you wish to redisplay the menu, you must physically remove and then reinsert the USB memory device. It is not possible to display the Media Menu using the pillow speaker alone.

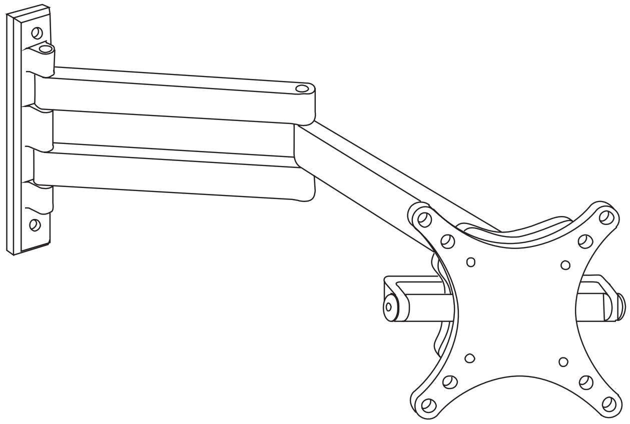
2. Use the arrow keys on the pillow speaker to select/highlight the desired menu option, and then press **Enter**.
3. Within each USB media directory (Movie List, Photo List, or Music List):
   - Use the arrow keys on the pillow speaker to navigate from one folder or file to another, and press **Enter** to open or play a selected folder or file.
   - If there are multiple pages of folders and/or files, use Channel Up/Down on the pillow speaker to move between the pages. At the top right corner of the display, a "Page" indicator will identify the number of pages available in the current directory.
   - Additional menu options are listed at the bottom of the display (each corresponds to a number button on the pillow speaker). These typically enable you to change directories, change the number of thumbnails shown at one time, mark files (to add to play lists), etc.

     Note: To exit the Media Menu from any of the three USB media directories, press **0** on the pillow speaker. If you wish to redisplay the Media Menu, you must physically remove and then reinsert the USB memory device.
   - In View and Play modes, you typically can use the pillow speaker to navigate to another directory level (without exiting the Media Menu).
   - To exit the directory/Media Menu entirely, either press **0** or **Return** on the pillow speaker.

Refer to the Owner's Manual for additional information on the Media Menu and directory options.

General Guidelines: Choosing a Location for Installing a VESA Standard Mount

To the right are some examples of VESA standard mounts. Since there are numerous types of stands and mounts available, only a few are shown here. Refer to the instructions provided with the TV stand that will be used to mount the TV. Be sure the style of stand selected is capable of supporting the weight of the TV and is appropriate for the application.



Typical Wall Stud Type Mount with Swivel Bracket

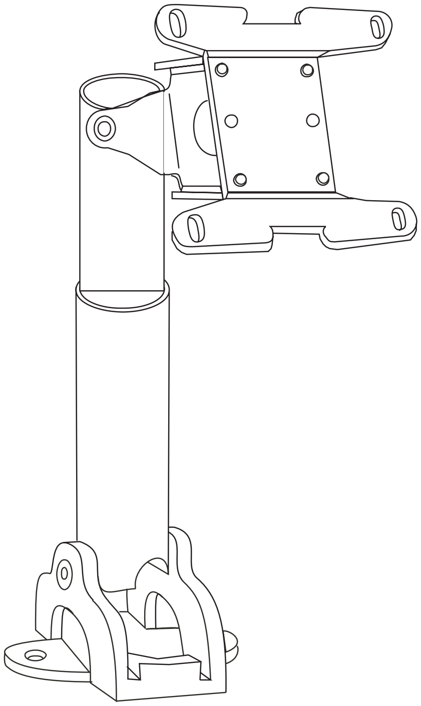
Wall Mounts

If the mount will be on a wall, a typical wooden stud behind the wall board would be the preferred choice for a location to attach the wall mount. The wall mount location chosen should be appropriate for drilling holes and have available the required power source as well as antenna/cable and any other equipment leads as necessary.

Pedestal Mounts and Stands

A sturdy surface on a desk or other similar flat table-like furniture would be the appropriate location for mounting a pedestal-style TV stand.

Most stands are designed so that the wiring is threaded through the stand itself or a loop-through style clamp so that the wiring is neatly bunched and not strung in such a way as to create a potential hazard to the user. (Some stands are portable and can be moved from one location to another.) Be sure all safety considerations are followed.



Typical Pedestal Type Mount with Swivel Bracket

Troubleshooting

General Troubleshooting (Some Quick and Easy Tips for Resolving Problems)

Installation

Symptom	Possible Cause(s)	Possible Solution(s)
Cannot direct enter channel number.	(TV in Pass-through Mode) Installer Menu item 028 CH. OVERIDE is set to 0, i.e., disabled and/or Channel Access was denied in Express Script.	If the channel lineup is locked (recommended setting), only channels that are active in the TV's channel lineup can be selected. Set 028 CH. OVERIDE to 1 to allow access for direct keypad entry to all channels.
	(TV in FTG Mode) The channel entered is not part of the FTG Channel Map.	Channel access is restricted to channels included in the FTG Channel Map. If necessary, make changes to the FTG Channel Map using the FTG File Manager or the FTG Device Configuration Application, as appropriate.
No channels present after setup.	Auto Tuning (Channel Search) not run.	Refer to Express Script or Custom Master TV Setup procedure, as appropriate. Auto Tuning must be run in order for the channel lineup to be populated. Note for Express Script: You must select "Execute Auto Search" in the Auto Search screen to run the search (see page 13). To re-activate the Express Script, set Installer Menu item 117 FACT DEFAULT to 001.

Power

No power.	See troubleshooting flow chart on following page.

Picture Reception and Sound

No picture.	TV is turned OFF.	• Turn TV ON. • Power failure?
	Antenna/cable not connected.	Connect antenna/cable signal to TV.
	Connections incorrect.	Check connections on TV.
	MPI not connected.	If applicable, connect MPI cable to MPI device.
	Encrypted program.	Try another channel.
	Wrong tuning band.	Adjust Installer Menu settings.
Normal picture, poor or no sound.	Broadcast problem.	Try a different channel.
	Audio muted.	Press MUTE or use Volume Up key to increase sound level.
	Pillow/TV speaker not configured properly.	Check that Installer Menu items 020 FEATURE LEVEL and 027 HOSPITAL MODE are set as required. Also, if applicable, select TV Speaker in the Audio Menu.

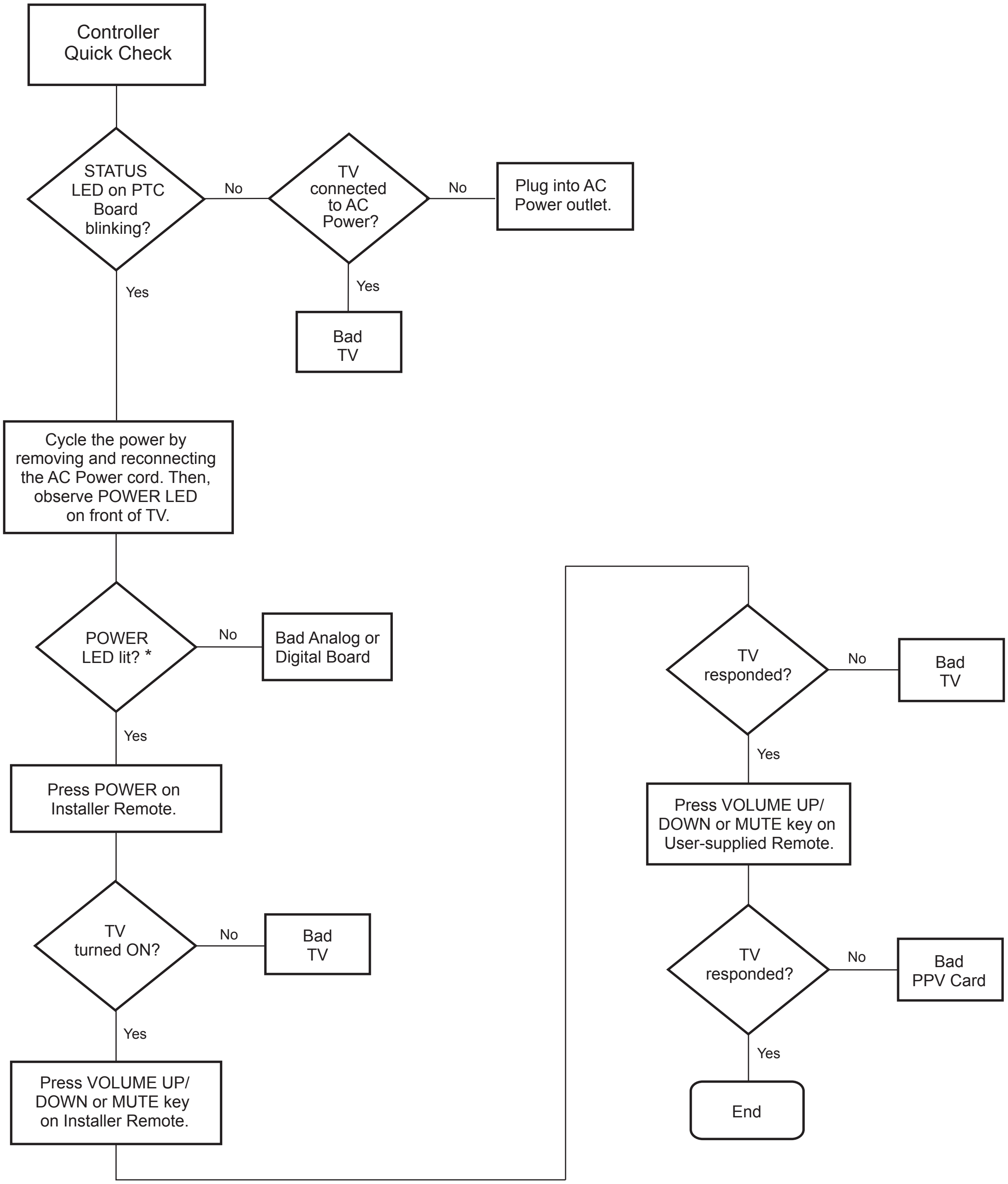
Erratic Operation

Installer Menu setup.	Wrong Installer Menu settings.	Adjust Installer Menu settings as required.

Installer Remote

Remote doesn't work.	Remote not in TV Mode.	Use MODE key to select "TV"; puts remote into TV Mode.
	Not aimed at IR remote sensor.	Point remote at TV's IR receiver on TV.
	Remote too far from IR sensor.	Move remote closer to TV's IR receiver or darken room.
	MPI not connected.	If applicable, connect MPI cable to MPI device.
	IR path to TV's receiver obstructed.	Remove obstructions.
	Weak batteries.	Replace batteries.
	Wrong battery polarity.	Check that "+" and "-" match in battery compartment.
	Too much light in room.	Dim room light.
	Bed Switch set to wrong bed.	Set Bed Switch or update Installer Menu, as necessary.
	Wrong Installer Remote.	Requires compatible Installer Remote. Contact your LG dealer.

Troubleshooting Flow Chart


Controller Quick Check
STATUS LED on PTC Board blinking?
No
TV connected to AC Power?
No
Plug into AC Power outlet.
Yes
Bad TV
Yes
Cycle the power by removing and reconnecting the AC Power cord. Then, observe POWER LED on front of TV.
POWER LED lit? *
No
Bad Analog or Digital Board
Yes
Press POWER on Installer Remote.
TV turned ON?
No
Bad TV
Yes
Press VOLUME UP/ DOWN or MUTE key on Installer Remote.
TV responded?
No
Bad TV
Yes
Press VOLUME UP/ DOWN or MUTE key on User-supplied Remote.
TV responded?
No
Bad PPV Card
Yes
End

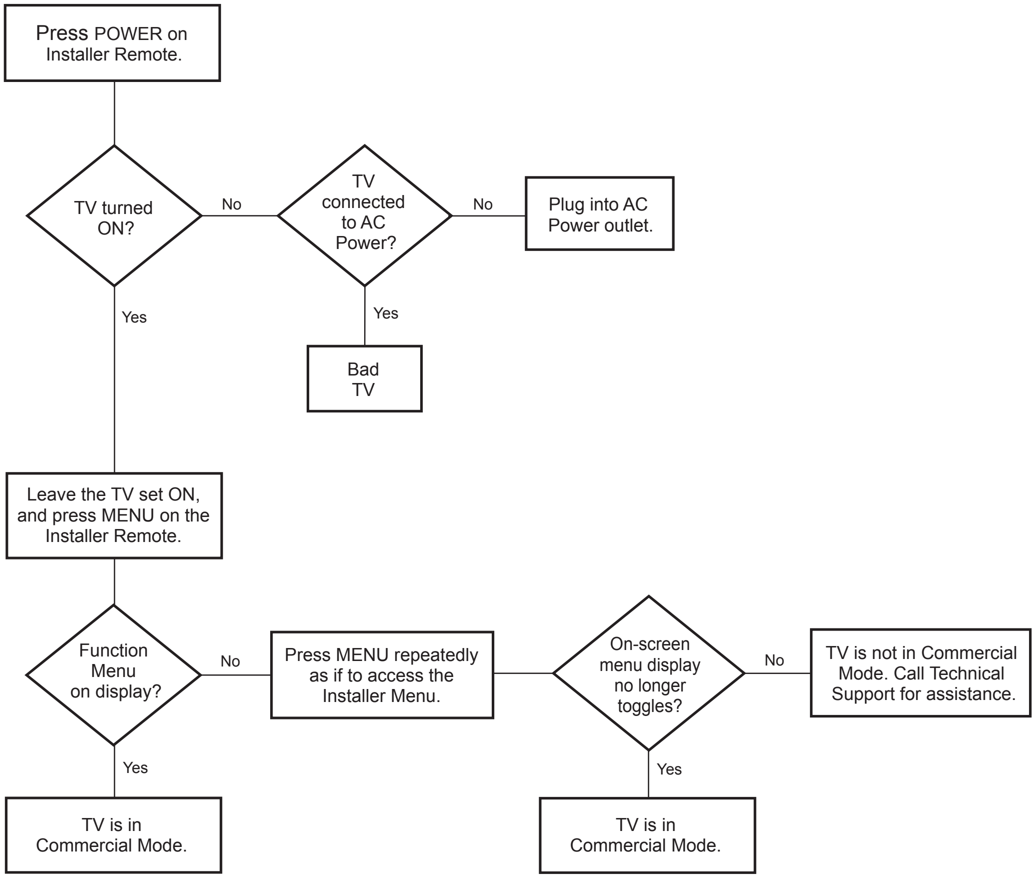
* If the Power Indicator/Standby Light option in the Option Menu is set to OFF, the POWER LED will not remain lit. Continue to the next step. (See also note regarding power indicator on page 59.)

Troubleshooting (Cont.)

Commercial Mode Check / FTG Operation Troubleshooting

Commercial Mode Check

Use this flowchart to determine whether the TV is currently in Commercial Mode.



Press POWER on Installer Remote.
TV turned ON?
No
TV connected to AC Power?
No
Plug into AC Power outlet.
Yes
Bad TV
Yes
Leave the TV set ON, and press MENU on the Installer Remote.
Function Menu on display?
No
Press MENU repeatedly as if to access the Installer Menu.
On-screen menu display no longer toggles?
No
TV is not in Commercial Mode. Call Technical Support for assistance.
Yes
TV is in Commercial Mode.
Yes
TV is in Commercial Mode.

FTG Operation Troubleshooting

The following table provides troubleshooting information for when the EBL is configured in the FTG Mode of operation.

Symptom	Possible Cause(s)	Solution(s)
Communication Error (“Communications Timeout”)	Cable(s) not connected.	Check and connect communication cables.
	TV not powered.	Check/connect the TV power cord.
	TV not turned ON.	TV needs to be turned ON (default setting of Installer Menu item 118 POWER SAVINGS).
	Wrong COM (communication) port.	In the FTG Device Configuration Application, select the correct COM port for the cable being used.

Clone Programmer Troubleshooting

Caution: If the TV is in LodgeNet PPV Mode (check with the site administrator if you are not certain), do not connect a clone programmer to the GAME CONTROL/MPI port, as this will damage the clone programmer.

Reset Clone Programmer After Static Shock

After replacing exhausted batteries (LT2002 only), or if the clone programmer behaves strangely after a static shock:

- TLL-1100A: Turn the TLL-1100A OFF and then ON.
- LT2002: Use a paper clip or similar instrument inserted through the small hole marked RESET to activate the internal reset switch and restore normal operation.

After a reset, check the real-time clock setting. It may be necessary to reset the clone programmer clock from a TV containing the correct time.

Note: See also IMPORTANT CLONING INFORMATION on page 32.

Clone Programmer

Symptom	Possible Cause(s)	Possible Solution(s)
Clone copies setup in less than 30 seconds.	Not enough time to copy entire TV setup.	TLL-1100A: Turn the TLL-1100A OFF and then ON. LT2002: Press RESET on clone programmer. Then redo Learn/Teach. (Learning usually takes about 90 seconds; Teaching usually takes 3 to 4 minutes.)
Remote does not operate clone programmer.	Wrong Installer Remote.	Only use an LG Installer Remote to operate clone programmer with TV.
Clone menu does not display on TV screen, TLL-1100A shows error message, or LT2002 LED does not blink.	MPI cable not connected.	Connect MPI cable properly, and ensure good connection.
	TV not turned ON.	TV must be turned ON for clone programmer to work.
	(LT2002 only) Weak batteries.	Install four (4) fresh AA high-quality alkaline batteries.
	(TLL-1100A only) No charge.	Ensure the TLL-1100A is fully charged or connected to AC power.
Clone menu hard to read.	Weak signal.	Connect TV to a reliable analog channel signal source.
No time set.	Time not available.	Set time on a TV, and copy time to clone programmer.
Clone not working.	Clone programmer problem.	• Try a different clone programmer. • Reset the clone programmer.
Clone scans channels more than once.	Clone should only scan channels once.	Ensure TV is set up correctly, and try cloning again.

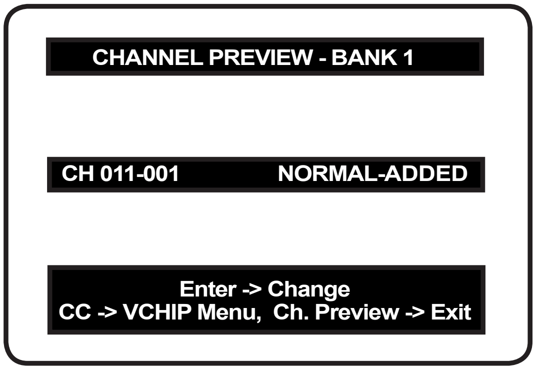
Master and Target TVs

Symptom	Possible Cause(s)	Possible Solution(s)
Cloning did not work.	Procedure interrupted.	Wait until procedure complete message is displayed.
	Different TV models.	Cloning is only possible with identical model TVs.
	Step(s) omitted or not performed.	Refer to the applicable cloning procedure(s), and make sure all tasks were performed.
(LT2002 only) Clone time disappeared.	Batteries were removed.	Batteries must remain installed to retain time settings.
New setup not present.	Target TV not reset.	Disconnect Target TV from AC power for 15 seconds.

- After cloning operations are complete, unplug the TLL-1100A/LT2002 from the TV.
- If the TV does not display a picture (blank screen) after a few seconds, just change channels.

Troubleshooting (Cont.)

Channel Banks Setup Troubleshooting



CHANNEL PREVIEW - BANK 1

CH 011-001 NORMAL-ADDED

Enter -> Change
CC -> VCHIP Menu, Ch. Preview -> Exit

Channel Preview/Banks Setup Menu

Symptom	Possible Cause	Possible Solution
Cannot change channel status in menu.	Channel Access was denied in Express Script and/or Installer Menu item 028 CH. OVERIDE is set to 000.	Set CH. OVERIDE to 001 to allow access for channel status change.
Channel Preview/Banks Setup Menu does not appear.	Express Script Installer Menu Wizard/ 2-5-5 + MENU (Custom Master TV Setup) not completed/performed.	The Channel Preview/Banks Setup Menu will not be available until the TV setup is transferred to the PTC. Also, set Installer Menu item 028 CH. OVERIDE to 001 to allow access for channel status changes.
Channel is blanked in all channel banks.	Blanking a channel in one channel bank will make it blank in all channel banks.	
Cannot tune in deleted channel on Channel Preview/Banks Setup Menu.		Select a channel bank where the deleted channel number is set to NORMAL-ADDED. Direct enter the deleted channel number. Change to the bank in which you want to activate the channel. Select "NORMAL-ADDED" on the Channel Preview/Banks Setup Menu.
"Inactive TV" message appears and then TV turns OFF.	TV is set up to display "Inactive TV" message if all channels are "NORMAL-DELETED" from Channel Bank 4.	Select another channel bank (1, 2, or 3) to return TV to normal operation.
Channel found during Auto Tuning does not tune in with Channel Up/Down.	Channel was deleted in currently selected channel bank.	If banks were set up, premium channels may only be available on another channel bank. Select the channel bank where the channel is set to NORMAL-ADDED. Or, direct enter channel number; then go to Channel Preview/ Banks Setup Menu and select "NORMAL-ADDED."
When BANK on Installer Remote is pressed, TV shows Input List Menu.	Installer Menu item 027 HOSPITAL MODE is set to 0.	Set item 027 to appropriate setting for channel banks to appear with BANK key presses.

Reference: Glossary of Terms

A list of definitions for some of the words found in this guide

75 OHM RF CABLE
The wire that comes from an off-air antenna or cable service provider. The end looks like a hex-shaped nut with a wire through the middle. It screws onto the Antenna/Cable threaded jack on the back of the TV.

300 TO 75 OHM ADAPTER
A small device that connects a 2-wire 300 ohm antenna to a 75 ohm RF jack. It is usually about an inch long with two screws on one end and a round opening with a wire extending out the other end.

A/V CABLES
Audio/Video cables. Three cables bunched together—right audio (red), left audio (white), and video (yellow). A/V cables are used for stereo playback of videocassettes and for higher quality picture and sound from other A/V devices.

A/V DEVICE
Any device that produces video or sound (VCR, DVD, cable box, or television).

AMPLIFIER
An electronic device that amplifies sound from a television, CD player, VCR, DVD player, or other audio/video device.

ANALOG TELEVISION
Standard television broadcasting format in 4:3 picture aspect ratio.

ANTENNA
The physical receiver of television signals sent over the air. A large metal piece of equipment does not always have to be visible to be using an antenna.

CABLE
Cable service box. Refers to the descrambler box cable subscribers use to receive cable programming signals.

CATV
Programming provided by a cable service.

COMPONENT VIDEO
Uses three wires for transporting three-color video signals. The end result is usually better video quality.

COMPOSITE VIDEO
Typical video jack, uses one wire for transporting three-color video signals.

DELETE
Lets you remove channels from the list that the end user can scroll through using Channel Up/Down.

DIGITAL TELEVISION
High-resolution, cinema-quality television signals transmitted digitally.

DVI
Digital Video Interface. Accommodates analog and digital interfaces with a single connector.

HDMI
High-definition multi-media interface.

HDSTB
High-definition set-top box. Refers to a tuner device that receives high-definition television signals, which have higher resolution than ordinary analog TV signals.

HDTV
High-definition television. Refers to television signals that have higher resolution than ordinary analog TV signals.

INPUT
Refers to the input jack that receives a signal from a TV, VCR, DVD player or other audio/video device.

JACK
An input or output connector on the back of a TV, VCR, DVD player, or other audio/video device.

MONO SOUND
Mono (monaural) sound is one channel of sound. On more than one speaker, all the speakers play the same audio.

OUTPUT
Refers to the output jack that sends a signal out of a VCR, DVD player, or other audio/video device.

PHYSICAL CHANNEL NUMBER
The actual channel number. Analog channels use the Physical Channel number, while digital channels can use a Virtual Channel number.

RGB (RED, GREEN, BLUE)
Connection input or output port available for producing a video image using three separate colors: Red, Green, and Blue.

RS-232
Serial communication port through which firmware is downloaded.

2ND AUDIO PROGRAMMING/SAP
Second Audio Programming (SAP) is another, separate audio channel available with some programming. Choosing SAP often refers to listening to audio in another language, such as Spanish or French.

SIGNAL
Picture and sound traveling through a cable, or over the air, to the TV.

STEREO SOUND
Stereo (Stereophonic) sound refers to audio that is divided into right and left sides.

TUNER
Device that picks up the broadcast signal and turns it into picture and sound.

VIRTUAL CHANNEL NUMBER
A re-mapped channel number. Analog channels use the Physical Channel number; however, digital channels use a Virtual (or false) Channel number.

XDS
Extended Data Service. Additional program information included on the signal provided at the discretion of the broadcaster.

Note: Refer to www.atsc.org for further information.

Document Revision History / Notes

Document Revision History

Date	Description
February 2012	Revision A: New document
February 2012	Revision B: Additional USB port for 26/32LQ630H
March 2012	Revision C: CQ610H information added

Product documentation is available online at: **www.LGsolutions.com/products**. From the Products page, select **TVs, Systems & Solutions**, then **LCD TVs**, then the applicable TV. Click the **Literature & Downloads** tab at the bottom of the TV page, and select the required document(s) from the Downloads list.

Notes

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www.LGsolutions.com

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206-4207
Revision C

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